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## THE MORE IMPORTANT RECORDS FOR APRIL

By the middle of April hatching of the lesser migratory grasshopper was about complete in Yuma County, Ariz. Less than 1 percent of the eggs of this species had hatched by this time in the Panhandle areas of Oklahoma and Texas. No hatching had occurred in the northern half of Kansas.

During the first week in the month Mormon crickets were reported as having hatched in parts of South Dakota, Wyoming, Montana, and Idaho. Egg hatching started in Utah and Nevada at the end of March and on the Pacific coast during the last week in February. In Franklin County, Wash., by the third week in April approximately 80 percent of the crickets were in the sixth instar and populations ran as high as 100 per square yard.

The army cutworm was in destructive numbers over a wide area extending from Montana and Idaho southward to Utah and Colorado and eastward to Nebraska and Kansas. In Oregon the western army cutworm seriously damaged 5,000 acres of grain land and 800 acres of grain.

Damage by May beetles was reported from the East Central States from Ohio to Mississippi. In some places damage to tree foliage was appreciable.

During the second week in April chinch bugs started leaving winter quarters in Indiana. Adults in small grain were observed in Oklahoma during the same week.

Greenbug was reported as doing considerable damage to small grain during the third week in April in Oklahoma and was very abundant in small grain in parts of Kentucky.

Late in the month pea aphid was reported as becoming quite abundant in the coastal and Eastern Shore areas of Maryland and Virginia, and from moderate to severe damage to alfalfa was reported over a wide area extending westward to Illinois and Wisconsin and southward to Mississippi and Oklahoma. Reports were also received from Colorado, Utah, and Oregon.

Clover leaf weevil was generally abundant in the East Central States and in parts of Virginia.

Codling moth passed the winter with but low mortality over the greater part of its range. Pupation was well under way by the third week of April in New York, Indiana, Illinois, Kentucky, Missouri, and Kansas. The first moth of the spring brood was observed on April 14, in Washington, 3 days earlier than last year.

Throughout the New England and Middle Atlantic States tent caterpillar was generally reported, in some places being in destructive numbers.

Various aphids attacking deciduous fruit trees were appearing in moderate to large numbers in the Middle Atlantic, New England, and East Central States. The apple grain aphid began hatching in New York State as early as April 9 and during this same week was hatching in Wisconsin.

Eggs of Comstock's mealybug began hatching in Albemarle County, Va., on April 21, 11 days earlier than last year.

European red mite began hatching in New York State and Pennsylvania during the third week in April. The insect seems to be prevalent from New England westward to Michigan.

Adult plum curculions began leaving hibernation quarters in large numbers during the first week in April in Georgia, the peak of emergence being reached by the middle of the month. The first adult to be taken in Pennsylvania was collected on April 15 and the first in Illinois on April 22.

Citrus aphid was heavily infesting new growth over a considerable area in Florida. The infestation was said to be the heaviest since 1925.

Vegetable weevil was reported as doing some damage throughout the South Atlantic and Gulf States.

Potato tuber moth was reported for the first time in Minnesota. All specimens were in potato storages.

During the third week in the month the first Mexican bean beetle was found in the Norfolk area of Virginia. About the same time the first adult of the bean leaf beetle was found in this area. Southward to Mississippi this species was rather plentiful and damaging beans.

Unusually severe infestations of asparagus beetle were reported from South Carolina and Washington.

Strawberry root weevil was doing severe damage to strawberries in Washington State, and the strawberry weevil was seriously infesting strawberries in Kentucky.

The tobacco flea beetle was severely injuring tobacco plant beds during the third week in April in South Carolina and was more abundant on newly set plants in Florida than usual.

Boll weevils were in flight in Louisiana during the first week in April. They were generally active in hibernation cages over the Cotton Belt during this week.



Spring cankerworms were defoliating orchards in central Oklahoma during the third week in the month. They appeared in outbreak numbers in the vicinity of Dallas, Tex., during the first week in the month.

During the month the elm leaf beetle was generally prevalent throughout New England and southward to Pennsylvania. Adults were particularly troublesome, entering houses.

White pine weevil was generally reported as being abundant throughout New England and New York.

American dog tick began appearing about the middle of April in the South Atlantic States and in the vicinity of Washington, D. C., was heavily infesting dogs by the end of the month. No cases of spotted fever have been reported as yet in the Eastern States.

Screwworm flies are occurring in enormous numbers in southern Texas. Infestation of very young calves is as high as 10 percent in some counties.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Arizona. B. M. Gaddis and assistants (April 6-12): Melanoplus mexicanus Sauss. is the only species of major importance now present in the crop area of Yuma County. Hatching is about complete, with the stages in development ranging from first instar to adult. First adult was reported to have been observed in the south Gila Valley area of Yuma County on April 8. Populations in alfalfa fields ranged from less than 1 to 45 per square yard, with concentrations in localized areas of some fields ranging into hundreds per square yard. Damage to alfalfa already is evident in some fields. Populations in the Gila Bend and Arlington districts of western Maricopa County range from less than 1 to more than 5 per square yard. (April 13-19): Hatching of the dominant species, M. mexicanus, is now almost complete in Yuma County and most of them are in the third and fourth instars. Nymphs have become well scattered throughout alfalfa fields. In Maricopa County populations per square yard are very low in most instances.

Kansas.<sup>1/</sup> (April 13-19): Practically no hatching has occurred in Kansas north and west of Great Bend. The peak of the hatch in this area is not expected to occur, even with favorable weather, prior to May 7. The weather has been more favorable toward egg development in southern Kansas, where M. mexicanus and Aeoloplus turnbullii Thos. have been hatching in very light numbers in the more favored environments during the week. Hatch at present is less than 1 percent complete.

Oklahoma and Texas. (April 13-19): Egg development in the Panhandle areas of Oklahoma and Texas has been favored by weather conditions and M. mexicanus and A. turnbullii were reported to be hatching in very light numbers in favored environments during the week; however, the hatch is less than 1 percent complete. Grasshopper nymphs were reported to be hatching along ditch banks and fence rows adjacent to wheat in Ochiltree and Hansford Counties, Tex. The dominant species observed was Aulocara elliotti Thos. M. mexicanus nymphs were found at only one stop in Ochiltree County. Hatching in these two counties is not general to date and nymphal populations are considerably less than one per square yard. First nymphs were found 15 miles southwest of Perryton, Ochiltree County, on April 18.

Missouri. L. Haseman (April 25): Infestation has returned to normal over the State, with the exception of a few counties in the south-central and southeastern part, where eggs were hatching in sheltered, sunny spots on April 18, according to G. D. Jones.

Utah. G. F. Knowlton et al. (April 5): Three first-instar nymphs were found in alfalfa near Saint George, Washington County, in the southern part of the State. (April 19): A few second- and third-instar grasshoppers, apparently A. elliotti and Melanoplus sp., were observed in

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Where no name is given after the State the report is by B. M. Gaddis and assistants.

South Milford area. (April 23): Two to 3 young grasshoppers per square yard had hatched on a south slope at Mendon, Cache County.

Utah. G. F. Knowlton (April 26): Two recently hatched grasshoppers (Melanoplus sp.) were found on the field margin of alfalfa at Ogden.

MORMON CRICKET (Anabrus simplex Hald.)

South Dakota. B. M. Gaddis (April 13): Began hatching near Wood in Mellette County during the first week in April.

Wyoming. (April 6-12): First-instar crickets were reported in Sheridan County on April 5 and in Hot Springs County on April 12.

Montana. (April 13-19): Reported hatching in Big Horn County.

Idaho. (March 30-April 5): Crickets were reported the week ended April 5 to be hatching only in the Monroe Creek area of Washington County. On April 3, 80 percent of the crickets observed in that locality were in the first instar. Crickets are reported to be hatching in the eastern part of the State in Bingham, Clark, Fremont, and Jefferson Counties. (April 6-12): Crickets are reported to have hatched over the entire State; however, no migrations have been reported and the crickets are generally confined to the egg beds. The average hatch in the eastern part of the State is less than 50 percent completed. (April 13-19): Hatching throughout the State is estimated to be 60 percent complete, with approximately 60 percent of the nymphs in the first instar and 40 percent in the second. The generally cool and stormy weather apparently has had no adverse influence upon the emerged crickets. For the most part they are remaining on the egg beds, with the exception of 1 small band in Clark County, averaging 50 crickets per square yard, which was reported to have migrated into an alfalfa field. First cricket hatches are reported for several of the counties in the State as follows: Bingham County, April 3; Jefferson County, March 29; Clark County, April 1; and Fremont County, April 7.

Utah. G. F. Knowlton et al. (March 31): Mormon crickets are hatching out in considerable numbers on egg beds on Lookout Pass and in a few other places in Utah and Juab Counties. A few are now in the second instar. (April 4): Approximately 10 percent of the eggs have hatched at Silver City on south slopes and 50 percent at Knight's Tunnel foothill areas, in Utah County. Approximately 55 percent have hatched at Lookout Point, in Tooele County. (April 12): Control operations began on hatching grounds near Elberta, in Utah County, on April 8 and at Lookout Pass, in Tooele County, on April 9, but were discontinued on April 10 because of weather conditions. Cool weather retarded hatching. (April 26): First-instar larvae are abundant at lower elevations near Eureka, in Juab County. Eggs on higher areas nearby, are still unhatched. Approximately 90 percent of the young crickets dusted in the Lookout Pass area during



the preceding week were killed. First- and second-instar crickets are being dusted in foothill areas south of Elberta, in Utah County. A few third-instar nymphs now are found in the counties just mentioned.

Nevada. B. M. Gaddis (April 6-12): A general storm over the cricket-infested area of the State retarded cricket development. Hatching of crickets in Humboldt County is reported complete, except at the higher elevations, and many crickets are in the second and third instars. (April 13-19): In the area adjacent to Elko, in Elko County, it was noted that crickets had developed from first to second instars, even with the unfavorable weather which prevailed. Apparently little cricket mortality resulted from the low temperatures and heavy rains.

Oregon. (April 6-12): Mormon crickets range from first to sixth instars, most of them being in the fourth instar, in Wasco and Jefferson Counties and from first to fourth instars in Baker, Gilliam, Sherman, and Umatilla Counties. (April 13-19): Fifth-instar crickets are now appearing at the lower elevations in Baker County. In Gilliam County they are in fourth to seventh instars. In Sherman County they are in third and fourth instars, with 85 percent in the fourth. From second to fourth instars are reported in Wasco and Jefferson Counties.

Washington. L. G. Smith (April 22): Mormon crickets started to hatch on February 24 in the Goodnoe Hills area of Klickitat County and the first week in March in Franklin County.

B. M. Gaddis (March 30-April 5): Hatch in Franklin County was 95 percent completed at the close of the week, with the crickets ranging from second to fifth instars. (April 6-12): Crickets in Franklin County range from the second to sixth instars, with populations of from 5 to 90 per square yard. (April 13-19): Crickets in Franklin County range from third to seventh instars, with approximately 80 percent in the sixth instar. Populations range from 10 to 100 per square yard.

COULEE CRICKET (Peranabrus scabricollis Thos.)

Oregon. B. M. Gaddis (April 13-19): Adults are reported in Wasco and Jefferson Counties.

CUTWORMS (Phalaenidae)

Georgia. T. L. Bissell (April 29): Cutworms were reported as killing tomato plants in Griffin.

Mississippi. C. Lyle (April 25): Damage reported from Attala and Tate Counties.

Missouri. L. Haseman (April 25): Moderately abundant during month throughout central part of the State; damaging a few garden crops.

South Carolina. C. F. Rainwater (April 26): Found injuring soybeans at Saint Matthews, Calhoun County.



Iowa. H. E. Jaques (April): Light in scattered counties in the southern part of the State.

Kansas. H. R. Bryson (April 12): Agrotis orthogonia Morr. was reported as causing injury to wheat in the vicinity of Hays.

Oklahoma. F. A. Fenton (April 25): The pale western cutworm is attacking wheat in Texas and Cimarron Counties.

C. F. Stiles (May 1): The pale western cutworm is generally distributed throughout the western half of Beaver and Texas Counties. Some fields have been damaged severely. In 1 field of 160 acres at least 60 percent of the wheat has been killed, worms occurring at the rate of 6 per linear foot of drill row.

Texas. R. K. Fletcher (April 14): A. orthogonia reported from Hansford County.

Utah. G. F. Knowlton (April 4): Cutworm injury severe in North Creek and South Creek areas, near Beaver. (April 14): Rather abundant in some alfalfa fields and plowed land at North Logan and Providence in Cache County. (April 23): New outbreaks are occurring in alfalfa and wheat fields at Fountain Green and near Mount Pleasant. (April 24): Abundant in some home gardens at Logan.

W. E. Peay (April 26): Cutworms are severe on 100 acres of alfalfa and grain at Penrose, where they did considerable damage last year.

Washington. M. C. Lane (April 3): Damage by Abagrotis barnesi Benj. serious in several commercial Concord grape vineyards at Kennewick, the damage consisting of holes in buds.

Oregon. B. G. Thompson (April 8): The western army cutworm (Chorizagrotis agrestis Grote) infested an area in Harney County containing 5,000 acres of sagebrush pasture and 800 acres of grain. Thirty acres of crested wheatgrass was destroyed, with the heaviest damage occurring in ryefields and wheatfields. From 20 to 30 larvae per square foot observed in heavier concentrations.

California. R. E. Campbell (March): Peridroma margaritosa Haw. collected on sugar beets east of Brawley and on watermelons east of Calexico on March 11 and 12, respectively. Feltia annexa Treit. collected on sugar beets south of Brawley on March 11. Agrotis ypsilon Rott. collected on sugar beets south of Holtville, and east of El Centro on March 11.

L. G. Jones (April 15): Specimens of P. margaritosa and A. ypsilon were received from Sacramento, with report that they were damaging young alfalfa, flax, and sugar beets. (Det. by J. F. G. Clarke.)

ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

Nebraska. H. D. Tate (April 16): Reported as attacking winter wheat in Banner County on March 17 and Dundy and Hitchcock Counties on March 19, and as damaging pasture in Hayes County on March 24.

Kansas. B. M. Gaddis (March 30-April 5): Infestations were reported in the following counties during the week: Mead, one case reported; Edwards, a general infestation confined to grasslands from which the worms were moving into crops; Rush, a light, scattered infestation; Ellis, a serious general infestation. (April 13-19): Cool and rainy weather during the last 3 weeks has retarded cutworm development and feeding and has permitted rapid growth of winter wheat and, as a result, army cutworms have done comparatively little damage. Some damage is reported in areas where alfalfa is the principal crop and complete destruction of several fields of new seedings is reported in Stafford and Reno Counties.

Montana. H. B. Mills (April 4): Quite abundant but spotted on wheat around Carbon and Yellowstone. Last general outbreak occurred in 1931 but some injury was sustained in 1937.

Wyoming. B. M. Gaddis (April 13-19): Army cutworm infestations are reported in Campbell and Goshen Counties; severity of infestation has not been determined, owing to weather conditions.

Colorado. S. C. McCampbell (March): Heavy infestations reported throughout the month in Larimer, Morgan, Washington, Adams, Jefferson, Yuma, Weld, and Denver Counties, in the northeastern section of the State. In most cases the larvae are moving into wheatfields from adjacent sod land.

B. M. Gaddis. (March 30-April 5): Heavy infestations in pasture and moderate infestations in wheat in an area southeast of Peetz, Logan County. Light localized infestations were found in pasture land in Phillips and Sedgwick Counties and in the sandhills north of Wray, in Yuma County. A moderate infestation in winter wheat and range land was found south of Eckley, in Yuma County. (April 13-19): Surveys were made during the week in Weld, Larimer, Morgan, Washington, Logan, Adams, and Arapahoe Counties. Army cutworms were found at most stops made in the aforementioned counties, but in only a few instances was there a heavy crop damage and this was chiefly to winter wheat. One supervisor estimated that throughout this area, approximately 40 percent of the worms have reached maturity and that pupation of many will occur within the next 7 to 10 days. The heaviest damage observed during the last few days occurred near Gary, Washington County. In 2 fields almost total destruction had occurred for approximately 3 rods into the fields. At a point 3 rods within the fields, cutworms averaged 14 and 9 per square foot, respectively. An infestation of moderate intensity located in the foothills west of Fort Collins was found to have been reduced by baiting to a light infestation. Light

to severe infestations were found for 1 mile west and 18 miles east of Kuner, in Weld County. Considerable damage was observed to spring and winter wheat adjacent to range land northwest of Fort Morgan in Morgan County, but most of the wheat, except late fall and spring plantings, is expected to make satisfactory recovery. Army cutworm infestations are still threatening to late fall and spring grain plantings in southeastern Weld and northeastern Adams Counties.

C. R. Jones (April 24): Tremendous outbreak of army cutworm has occurred throughout various parts of the State, and considerable damage is being done in wheat and alfalfa fields.

Idaho. F. H. Shirck (April 9): C. auxiliaris found severely damaging a stand of fall-sown rutabagas at Parma. (Det. by C. Heinrich.)

R. A. Fisher (April 25): Army cutworms were attacking grain moderately to severely in Power County.

Utah. G. F. Knowlton (April 4): Army cutworm is heavily infesting more than 2,200 acres, mostly wheat and alfalfa, in Beaver County. (April 7): Injuring crops at Aurora, Salina, and Redmond, in Sevier County, and at Price, in Carbon County, and heavily infesting 800 acres of wheat and alfalfa fields and 200 acres of adjoining range land in Piute County. (April 12): Approximately 2,000 acres of range and 200 acres of crop land are also infested in Carbon County and an equal acreage in Grand County. In San Juan County 400 acres of small-grain and stubble land are infested south of Blanding. Large flocks of ravens are feeding actively upon these insects at Blanding and in several localities of Grand County. Some injury is occurring to crops in Emery County. (April 19): Causing severe injury to alfalfa south of Monroe, and control measures are being used in Sanpete County. Injury most general in foothill areas. Young alfalfa stands have been killed out in some parts of Milford Valley and serious injury has occurred to older patches, especially in the margins. (April 23): Specimens submitted from Logan on April 16, taken from two extensive outbreaks occurring in the State. (Det. by C. Heinrich.)

ARMYWORM (Cirphis unipuncta Haw.)

Illinois. W. P. Flint (April 22): Moderate flights of adults occurred on April 14, and have appeared on warm nights since that date.

Missouri. L. Haseman (April 25): Moths quite numerous since April 15, visiting fruit blossoms on warm nights, in central part of State. Infestations in oats and lespedeza in southwestern Missouri on April 23 reported by W. W. Smith.

FALL ARMYWORM (Laphygma frugiperda A. & S.)

Florida. J. R. Watson (April 23): First report for season sent in from Jacksonville. Young were very small.



WHITE-LINED SPHINX (Sphinx lineata F.)

Arizona. C. K. Fisher (April 10): Larvae, many apparently full grown, were numerous on unidentified desert plants east of Gila Bend. Display of flowering desert vegetation reported as being finer than at any time since 1902.

BELLA MOTH (Utetheisa bella L.)

South Carolina. F. Sherman (April 25): Caterpillar (perhaps U. bella) prevalent on corn, vetch, and garden vegetables, mainly in central part of the State.

WIREWORMS (Elateridae)

Washington. L. G. Smith (April 9): Click beetles were observed causing some damage to grape buds in the Kennewick district of Benton County. These beetles seem to rasp the surface at the base of the buds and on the opening leaves that have not quite separated. Apparently they then feed on the sap that collects on the surface.

E. W. Jones (March): The first adult of the Pacific coast wireworm (Limonius canus Lec.) emerged in the Walla Walla Valley March 16. In field cages about 54 percent had emerged by March 31. About 90 percent of the adults survived the winter. (April 1): L. californicus Mann. found feeding on underground stem of lettuce plants and killing them at Walla Walla--first record of damage.

MAY BEETLES (Phyllophaga spp.)

Tennessee. G. M. Bentley (April 21): Different species of May beetles prevalent in counties of western Tennessee.

Mississippi. C. Lyle (April 25): Beetles reported as damaging oak trees in Chickasaw County and pecan trees in Holmes and Hinds Counties; also abundant at lights in Tate County on April 19. Specimens of P. arkansana Schffr., P. micans Knoch, and P. tristis F., were collected at lights in Stone County. P. arkansana was abundant.

Ohio. N. F. Howard (April 17): Specimens of P. prunina Lec. found injuring cabbage at South Point on April 17. (Det. by W. H. Anderson.)

Kentucky. W. A. Price (April 25): Brood A began emerging on April 17 at Lexington. Slight stripping of pin oak foliage occurred the night of April 19.

Michigan. R. Hutson (April 22): P. tristis adults found in large numbers in a nursery at Wellston.

Minnesota. A. A. Granovsky (April 15): White grubs are becoming numerous. Brood "C" will be in second year of development and appears to be reaching the same economic importance as Brood "A." This is especially



true of P. rugosa (Melsh.) and P. fusca (Froel.). Owing to favorable ecological conditions during the last few years, the brood "C" gained in greater economic condition and in some areas became of greater importance than brood "A." In this connection P. rugosa surpassed P. fusca in numerical abundance, reversing the order of abundance. During the same period P. tristis succeeded in building up its populations also, as compared with those of 10 years ago.

Iowa. H. E. Jaques (April): Light infestation of white grubs in scattered counties in the State.

Utah. G. F. Knowlton and F. C. Harmston (April 6): White grubs reported as causing serious injury to lawns at Rockville. (April 11): Seriously damaged many spots in a golf course south of Salt Lake City, and reported injuring many lawns in this locality.

#### GREEN JUNE BEETLE (Cotinis nitida L.)

South Carolina. N. Allen et al. (April 17): Several tobacco plant beds severely injured by larvae in Florence and Marion Counties.

#### BEETLES (Scarabaeidae)

Connecticut. J. P. Johnson (April 21): Larvae of the Japanese beetle (Popillia japonica Newm.), the oriental beetle (Anomala orientalis Wtrh.), and the Asiatic garden beetle (Autoserica castanea Arrow), ascended from hibernation quarters up into the roots of turf at New Haven during the week of April 13.

#### BUMBLE FLOWER BEETLE (Euphoria inda L.)

Virginia. L. A. Hetrick (April 8): Adults flying in abundance near soil in pine woods of King and Queen County.

#### WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

California. A. E. Michelbacher (April 22): Adults were scarce on April 18 in the San Joaquin Valley, less than 1 on the average being collected per 100 net sweeps. More abundant in area adjacent to the San Francisco Bay, where about 4 were collected per 100 sweeps of the net.

#### A COREID (Corizus indentatus Hambl.)

Washington. C. E. Woodworth (March 1): Found in large numbers on crested wheatarass near Walla Walla.

#### COMMON RED SPIDER (Tetranychus telarius L.)

Georgia. T. L. Bissell (April 24): Injury on red raspberry beginning at Clarkston. Vetch also infested.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

CHINCH BUG (Blissus leucopterus Say)

- Indiana. C. Benton (April 25): Spring flight from winter quarters occurred in the vicinity of La Fayette on April 10. Winter wheatfields show an infestation of less than one bug per foot of drill row. Many are still in bunchgrass or dispersed into adjacent cover.
- Illinois. W. P. Flint (April 22): No noticeable flight from hibernating quarters as yet. Heavy rains of last week have had no effect in reducing numbers.
- Iowa. H. E. Jaques (April): Very light in a few counties in the southeastern part of the State, and light to moderate in many counties in the southwestern part.
- Missouri. L. Haseman (April 25): No evidence of spring flight from winter quarters in central part of State and no reports of flights received from other parts.
- Nebraska. H. D. Tate (April 16): A limited survey conducted a few weeks ago indicated that winter mortality has been very low.
- Kansas. H. R. Bryson. (April): Bugs were flying in large numbers during the week of April 21 to 26. Reports have been received from southeastern Kansas, Effingham in the northeast, Manhattan, and Wichita. The bugs overwintered successfully and threaten to become a menace over the eastern half of the State. Wheat in the vicinity of Manhattan has attained such rank growth that the fields are not very attractive to the bugs.
- Oklahoma. R. G. Dahms (April 23): First bugs observed in small grains on April 9 and by April 16 approximately 95 percent had migrated from winter quarters. Spring migration occurred about 2 weeks later than normal. First eggs observed on April 21. Infestation in small grain is more severe than normal, counts made in 50 linear feet of drilled row made on April 16 showing an average number of bugs per foot as follow: Spring-planted barley 22.9, winter-planted barley 8.4, spring-planted oats 1.2, winter-planted oats 0.4, and winter wheat 2.1.

GREEN BUG (Toxoptera graminum Rond.)

- Kentucky. W. A. Price (April 25): Green bugs very abundant generally over the State in small grains, and grasses.
- Oklahoma. R. G. Dahms (April 23): Reported as doing damage in Caddo, Comanche, Cotton, and Jefferson Counties, southwestern section, during the early part of April. All of the injury personally observed occurred in volunteer winter oats.

F. A. Fenton (April 25): Reported as causing considerable damage to barley, volunteer oats, and some wheat in Payne County, in the central part of the State, and Jefferson, Cotton, and Comanche Counties in the southwestern part. Infestation on decline, owing to recent rains.

A MITE (Tetranychina tritici Ewing)

Oklahoma. R. G. Dahms (April 23): Reported on wheat from Comanche and Tillman Counties, southwestern Oklahoma. Infestation is very light, as compared with the last 3 years.

A MITE (Tetranobia sp.)

Oregon. D. C. Mote (April 23): Destroyed 140 acres of wheat foliage at Lakeview, south-central Oregon. Migrating toward a 1,000-acre wheat-field.

CORN

CORN EAR WORM (Heliothis armigera Hbn.)

Georgia. T. L. Bissell (April 23): Two moths caught at light trap at Experiment, central Georgia.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Virginia. H. G. Walker and L. D. Anderson (April 25): Examination of larvae at Backbay, Princess Anne County, indicated that no pupation had occurred on April 7, but that about 6 percent had pupated by April 15, and 39 percent by April 22.

CORN FLEA BEETLE (Chaetocnema pulicaria Melsh.)

South Carolina. W. C. Nettles (April 25): Flea beetle, identified as probably C. pulicaria, is injuring corn in Allendale County.

O. L. Cartwright (May 1): Considerable injury caused in sweet-corn plots at Clemson, Oconee County.

Mississippi. M. L. Grimes (April 15): Injury to corn is scattered in Neshoba County.

ALFALFA

PEA APHID (Macrosiphum pisi Kltb.)

New York. N. Y. State Coll. Agr. News Letter (April 28): First observed April 21, on Long Island, on pea seedlings, alfalfa, and red clover. First generation of winged migrants found on peas. Apparently evident that they are more prevalent than in the last 2 seasons.



- Virginia. H. G. Walker and L. D. Anderson (April 25): Becoming very abundant in some fields of alfalfa in the Norfolk area.
- South Carolina. C. F. Rainwater (April 26): Complaints have been received from Florence County of aphid injury to garden peas.
- Tennessee. G. M. Bentley (April 24): Alfalfa field at Bell Buckle, Bedford Co., is being damaged. Infestation occurs in spots from 5 to 8 feet in diameter, causing foliage to turn yellow and drop.
- Illinois. R. A. Blanchard and R. O. Snelling (April 24): Severe to moderate damage to first crop of alfalfa was observed to be general in the southwestern part of the State.
- Kentucky. W. A. Price (April 25): Unusually abundant on alfalfa, the latter part of April, in the Bluegrass Region.
- Wisconsin. J. E. Dudley, Jr. (April 15): First hatching probably occurred on April 10 to 12. Eighteen first-stage nymphs were found on alfalfa in 15 minutes on April 14 in Madison and its environs.
- Missouri. L. Haseman (April 25): Rather serious infestations in many alfalfa fields reported, particularly from the southeastern part of the State.
- Mississippi. C. Lyle, et al. (April 25): Injury to English and winter peas by aphids, probably this species, has been reported from Attala County, from the southeastern area, from the Meridian area, from the Poplarville section, and from Hinds and Oktibbeha Counties.
- Arkansas. D. Isely (April 25): Unusually abundant on alfalfa and vetch, particularly in the northeastern part of the State.
- Kansas. H. R. Bryson (April 12): Has been fairly abundant in most alfalfa-growing areas. Although weather conditions have favored the growth of alfalfa, the aphids have caused some injury.
- Oklahoma. F. A. Fenton (April 25): Damage to alfalfa, reported from Muskogee, Payne, Cimarron, and Garfield Counties, indicates that the insect is widespread in the State. In Payne County the infestation was checked by a fungus.
- R. G. Dahms (April 23): Light infestations observed in several alfalfa fields in Comanche County.
- Colorado. C. R. Jones (April 24): Infestation very serious in some alfalfa and grainfields.



Utah. G. F. Knowlton, et al. (April 5): From 20 to 35 aphids per semi-circular sweep were taken in alfalfa fields at Saint George, and from 7 to 10 per sweep at Leeds, some of the latter being second-generation alates. Nysius sp. and syrphid larvae are preying upon them in moderate abundance. (April 9): In second generation and moderately abundant on alfalfa at Rockville, Kanab, Greenriver, and Moab. (April 20): Nymphs, ranging in size from recently hatched to two-thirds grown, are present in most alfalfa fields examined in Weber, Box Elder, and Cache Counties; also present on sweetclover. (April 22): From 1 to 15 aphids were taken in each 10 sweeps in Cache County today in alfalfa which was from 3 to  $4\frac{1}{2}$  inches tall. Average was about 4 per 10 sweeps.

Oregon. K. W. Gray (April 1): Large numbers of winged forms appeared about April 1 and infested late-sown fall legumes and cannery peas in the Willamette Valley.

#### PLANT BUGS (Lygus spp.)

Utah. G. F. Knowlton (April 20): Lygus elisus Van D. and L. elisus hesperus Knight are moderately abundant in alfalfa at Logan, Richmond, and Smithfield.

#### ALFALFA WEEVIL (Hypera pestica Gyll.)

Utah. G. F. Knowlton and F. C. Harmston (April 8): Four larvae were collected in one sweep upon alfalfa at Saint George, in the southern part of the State. (April 26): Adults moderately abundant and mating in several fields examined in Cache, Box Elder, Weber, Tooele, and Utah Counties; most abundant at Genola, Utah County.

California. A. E. Michelbacher (April 22): In the infested region of the San Joaquin Valley on April 18 the number of larvae collected per 100 sweeps for the different fields ranged from 0 to 611. The larval population was much less than last year, and very little damage was done to the first crop. Injury that might be considered of an economic nature was limited to 2 fields. Almost all of the adults collected in the San Joaquin Valley on April 18 had recently emerged. Only a few larvae were collected in the alfalfa fields in the region adjacent to the San Francisco Bay, the number for the different fields ranging from 4 to 56. Populations encountered this year are the smallest found since the weevil was first discovered in the area in 1932. Parasitization in this district by Bathyplectes curculionis Thoms. on April 6 was 66 percent, as compared with 58 percent on April 7 in the San Joaquin Valley.

#### CLOVER

#### CLOVER LEAF WEEVIL (Hypera punctata F.)

Virginia. S. B. Fenne (April 24): Heavily infesting a 15-acre field of red clover in Smyth County in the southwestern part of the State.

Ohio. T. H. Parks (April 29): Larvae are causing a very ragged appearance of red clover on several farms in Butler County, in southwestern Ohio.

Indiana. J. J. Davis (April 23): Reported as damaging clover at Columbus, south of the central part of the State, on April 21. Climatic conditions are unfavorable for the fungus disease which normally holds the insect in check.

Illinois. J. H. Bigger (April 23): Considerable feeding on all clovers and alfalfa in central part of the State, and most severely on red clover and one variety of sweetclover.

Kentucky. W. A. Price (April 25): Larvae very abundant on red clover in the Bluegrass Region during April. A fungus disease killed many of them late in the month.

Missouri. L. Haseman (April 25): Reported as extremely abundant in clover and alfalfa fields from various sections of the State, and as stripping most of the young growth in some fields. Weather conditions are ideal for heavy feeding by the larva.

Idaho. R. A. Fisher (April 25): One field of white Dutch clover in Nez Perce County, northern Idaho, was almost completely defoliated.

A WEEVIL (Sitona cylindricollis Fahraeus)

Illinois. J. H. Bigger (April 25): The weevil is feeding heavily on sweetclover plants wherever they occur north of U. S. Route 30. Other clovers and alfalfa not damaged, even when in mixed plantings.

SOYBEAN

AN APHID (Trifidaphis phaseoli Pass.)

South Carolina. C. F. Rainwater (April 26): White cotton root aphid is very numerous on soybeans in Florence County, but apparently not causing much injury.

COWPEA

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

Georgia. T. L. Bissell (April 23): Adults are beginning to emerge from hibernation to trap cowpea plants at Experiment. One was found on April 16, one on April 21, and four on April 23.

Florida. J. R. Watson (April 23): Specimen sent in from Clearwater with report that it was feeding on young citrus leaves.

GRASS

A BILLBUG (Calendra phoeniciensis Chitt.)

Arizona. R. A. Flock (April 18): Severe damage at Benson, southeastern Arizona. Probably the most serious pest of Bermuda grass at lower elevations, such as Tucson and Phoenix.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis F.)

Louisiana. W. A. Douglas (April 22): The number of larvae surviving the winter in the rice section is very small.

J. W. Ingram and E. K. Bynum (April 25): First-generation eggs are much more numerous than last year.

SUGARCANE BEETLE (Euetheola rugiceps Lec.)

Louisiana. J. W. Ingram (April 25): Injury up to the present time is the lowest on record while in previous years beetle injury had almost reached its maximum by this date.

RICE

RICE STINKBUG (Solubea pugnax F.)

Louisiana. W. A. Douglas (April 22): Bugs are scarce in the rice territory that was flooded last August.

F R U I T I N S E C T S

SAN JOSE SCALE (Aspidiotus perniciosus Const.)

New York. N. Y. State Coll. Agr. News Letter (April 14): More abundant this spring than usual in Orleans County, western New York.

Georgia. O. I. Snapp (April 18): Very little mortality during winter at Fort Valley, central Georgia. Percentage of live scale in peach orchards is higher than average, and general infestation is heavier than usual.

Mississippi. C. Lyle, et al. (April 25): Rather heavy infestations on unsprayed fruit trees were reported from the northeastern section and the Jackson and Meridian districts.

Illinois. S. C. Chandler (April 22): Twenty-five percent survived winter in latitude of Carbondale, southern Illinois.

Michigan. R. Hutson (April 22): Careful survey disclosed no infestation in regularly sprayed orchards.



Minnesota. A. G. Ruggles and C. E. Mickel (April 16): Moderately abundant.

BUFFALO TREEHOPPER (Ceresa bubalus F.)

Wisconsin. C. L. Fluke (April 25): Becoming more numerous and doing considerable injury to both apple and cherry in Door County.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York. D. W. Hamilton (April 21): At Poughkeepsie larvae overwintering under paper bands around apple-tree trunks were 45 percent pupated today, the earliest date they have been found in this locality in the last 6 years, and 15 days earlier than last season.

Georgia. W. H. Clarke and C. H. Alden (April 17): First emergence from overwintered larvae noted in insectary at Cornelia, northeastern Georgia, on April 17.

Indiana. L. F. Steiner (April 24): Winter mortality in southern part of State was less than 3 percent, well below normal. Population appears much larger than normal. Examinations in apple orchards by S. A. Summerland at Vincennes indicated that very little, if any, pupation occurred prior to April 7, but that 25 percent of the brood had pupated by April 15 and 57 percent by April 22.

Illinois. W. P. Flint (April 22): Approximately one-fourth of the overwintered larvae had pupated by April 20 in the region.

Illinois. S. C. Chandler (April 22): In southern and western parts of the State the winter mortality of larvae ranged from 5 to 10 percent. The first pupation occurred at Carbondale on February 12.

Kentucky. W. A. Price (April 25): Heavy carry-over of larvae, the counts at Lexington in bands indicating a mortality of less than 10 percent. Fifteen to 20 percent had pupated by April 24.

Minnesota. H. P. Nicholson (April): One adult caught at light on April 2 at Saint Paul.

Missouri. L. Haseman (April 25): Heavy carry-over in orchards throughout the State generally. Approximately 8 percent of the larvae had pupated on April 23 in the southwestern part of the State.

Missouri and Kansas. H. Baker (April 25): Winter mortality of larvae unusually low in northeastern Kansas and northwestern Missouri. Checks on apple orchards indicated that 8 percent of the hibernating larvae pupated by April 14 and nearly 30 percent by April 24.

Utah. C. J. Sorenson (April 19): Weather conditions generally favorable for development. A few pupae were found on April 11 in apple orchards



at Orem, central Utah.

Washington. C. C. Alexander (April 14): First moths observed today at Yakima, 3 days earlier than last year.

EASTERN TENT CATERPILLAR (Malacosoma americana F.)

Maine. F. H. Lathrop (April 21): Observed to have hatched on wild cherry and apple on April 21 at Monmouth, several days earlier than last year. Eggs probably hatched during the week ended April 19.

New Hampshire. J. G. Conklin (April 17): Hatching observed today in southern part of State.

Vermont. H. L. Bailey (April 30): A few tents were showing up on April 22. Infestation apparently light and scattered throughout the State.

Massachusetts. A. I. Bourne (April 23): Hatched during latter part of week ended April 19. Young caterpillars were constructing tents on April 20.

Massachusetts. J. V. Schaffner, Jr. (April 15): Observed hatching today at Weston, Middlesex County, in the eastern part of the State. A few caterpillars had left egg cluster and were feeding on leaf buds of wild cherry.

Connecticut. P. Wallace (April 23): First tent observed on wild black cherry at Hamden on April 17. More common than last year and abundant in southwestern part of State.

E. P. Felt (April 23): Tents at Stamford, Fairfield County, in extreme southwestern part of State, have a diameter of approximately 2 inches. Probable defoliation of groups of wild cherries and severe damage to apple trees in some places is expected.

J. V. Schaffner, Jr. (April 19): Tents common in some localities in New Haven County.

New York. E. P. Felt (April 23): From moderately to possibly extremely abundant in much of the area within 100 miles of New York City.

J. V. Schaffner (April 14): Hatching was observed by S. F. Potts near Albany and in Norwich, Chenango County, on April 14.

N. Y. State Coll. Agr. News Letter (April 21): In eastern New York tent caterpillars were first observed on April 14. Egg masses are numerous. In Cayuga County tents were seen on April 22.

New Jersey. R. J. Kowal (April 16): Numerous colonies observed feeding in Somerset County on bursting buds of apple and wild cherry trees.

Longest axis of webs was about 2 inches. More advanced colonies seen in sections of Monmouth County on April 17.

F. A. Soraci (April 14): Tents observed in central and southern parts of the State.

Pennsylvania. T. L. Guyton (April 23): Present in rather heavy numbers on apple and wild cherry at Milford, Dingmans Ferry, in Pike County; East Stroudsburg and Kresgeville, in Monroe County; Weissport, in Carbon County; Snyders and McKeansburg, in Schuylkill County; Hamburg and Shartlesville, in Berks County; and several points in Lebanon and Dauphin Counties, all in eastern Pennsylvania.

G. B. Slesman (April 21): Very prevalent over entire Philadelphia area on wild cherry and apple, and appears to be much heavier than in previous years. Wild cherries have been completely defoliated in some areas.

Virginia. L. A. Hetrick (April 10): Small webs and first-instar larvae observed on wild cherry in King William County.

A. M. Woodside (April 18): Nests abundant in Augusta and Albemarle Counties, the eggs having hatched only a few days ago.

R. L. Taylor (April 25): Egg masses hatching at Williamsburg, in James City County, and in York County, in the southeastern part of the State. Some tents are already well advanced and larvae are about 3 centimeters long. Ornamental apple trees on the campus moderately damaged.

South Carolina. F. Sherman and W. C. Nettles (April 25): In evidence on apple and chokecherry, but perhaps less than usual.

Georgia. O. I. Snapp (April 13): At Fort Valley colonies were noted in the fork of limbs of wild cherry today. Infestation appears to be heavier than usual.

W. H. Clarke (April 17): Newly hatched larvae now making tents at the base of forest-tree limbs at Cornelia, in northeastern Georgia.

Tennessee. G. M. Bentley (April 17): Occurring in rather large numbers on wild cherry and apple trees, especially in counties in western part of the State.

W. F. Turner (April 21): Very abundant on wild black cherry and occasionally on peach in Hamilton County.

Mississippi. C. Lyle, et al. (April 25): Injury to wild cherry and to some extent to peach and wild crab apple has been observed in Choctaw, Clay, and Oktibbeha Counties. Several colonies on peach and plum were seen in Holmes County. Reported as injuring Cape-jasmine in Oktibbeha County and wild cherry in Lafayette County.

Kentucky. W. A. Price (April 25): Reported as being unusually abundant the middle of April in several western apple orchards.

Oklahoma. F. A. Fenton (April 25): Unusually abundant on plum, especially wild plum, over the State generally.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

New York. N. Y. State Coll. Agr. News Letter (April): In the lower Hudson River Valley larvae were first seen on April 20. In western New York egg masses are very numerous in many orchards. A few larvae were found on April 23 and 24 in Cayuga County.

Illinois. W. P. Flint (April 22): Eggs began hatching in the western part of the State on April 18, and hatch was nearly complete by April 21. Larvae have been reduced to some extent by adverse weather conditions.

Illinois. S. C. Chandler (April 22): Very rapid hatch of eggs is taking place in the southern and western parts of the State, apparently starting about the time of the first apple blooming.

Wisconsin. C. L. Fluke (April 25): Thorough search in Door County failed to reveal any leaf roller eggs.

Missouri. L. Haseman (April 25): Nearly all eggs had hatched before April 20 in the central part of the State, and young larvae are beginning to feed on leaves of the opening buds.

PISTOL CASEBEARER (Coleophora malivorella Riley)

Pennsylvania. H. M. Steiner (April 28): Larvae began leaving hibernating quarters on April 1 in the vicinity of Arendtsville, in southern Pennsylvania. Most of them were feeding on apple from April 10 to 20. Feeding was interrupted by molting from April 17 to 27.

EYE-SPOTTED BUDMOTH (Spilonota ocellana D. & S.)

New York. N. Y. State Coll. Agr. News Letter (April): In eastern New York larvae were observed in the buds on April 16. By the last of the month they were observed in considerable numbers. In western New York first active larva was found on April 15 in Wayne County. By the last of the month they were doing considerable damage in some orchards.

F. Z. Hartzell (April 25): High winter survival in Wayne, Monroe, and Orleans Counties. Indications are that infestation will be very serious in possibly one-half of the apple orchard acreage.



SPOTTED TENTIFORM LEAFMINER (Lithocolletes blancardella F.)

Pennsylvania. H. M. Steiner (April 28): Adults emerged rapidly from pupae in dead leaves during the week of April 6-12, in the vicinity of Arendtsville, in the southern part of the State, and were numerous on apple trees in the observed orchards when early leafing varieties were in the green-tip stage on April 10.

APHIDS (Aphidae)

New Hampshire. J. G. Conklin (April 8): Apple aphids began hatching to-day in Durham, southeastern part of the State.

Massachusetts. A. I. Bourne (April 23): Young orchard plant lice were found hatching around April 12, but actual first appearance date was a day or two earlier, because aphids were out in abundance.

Connecticut. P. Garman (April 24): Anuraphis roseus Baker and A. pomi Deg. are scarce on apple trees.

New York. F. Z. Hartzell (April 25): At Geneva green apple aphids, rosy apple aphids, and grain aphids (Rhopalosiphum prunifoliae Fitch) have hatched and are moderately abundant. Percentage of rosy aphids runs from 10 to 20 percent, which is quite high.

N. Y. State Coll. Agr. News Letter (April): Aphids are hatching in the lower Hudson River Valley, the grain aphid having been noted as early as April 9 and the green aphid and the rosy aphid by the middle of the month. They are occurring in moderate abundance, the grain aphid being the predominant species. At Ithaca the grain and green species were first reported on April 10 and the rosy aphid was observed near the lake on April 17. Aphids are moderately abundant, but vary considerably from orchard to orchard.

Virginia. A. M. Woodside (April 18): Light infestation generally. First eggs of A. roseus hatched about April 8 in Augusta County.

W. S. Hough (April 23): In northern Virginia A. roseus and R. prunifoliae were numerous in some orchards during first half of April, but at present it appears that natural enemies will eliminate or greatly reduce their numbers so that commercial damage will be improbable.

Pennsylvania. H. M. Steiner (April 28): Apple aphids are scarce in the vicinity of Arendtsville. Syrphid flies and ladybird beetles were more numerous than in several years.

Indiana. L. F. Steiner (April 8): Apple grain aphids began hatching today at Vincennes. (April 24): Apple grain aphid is very abundant but the rosy aphid appears less abundant than usual.



Ohio. T. H. Parks (April 22): R. prunifoliae was very abundant on opening buds 10 days ago at Columbus, and today the stem mothers have matured and are surrounded by colonies of young. No other species of aphids observed on apple trees today.

Michigan. R. Hutson (April 22): Grain aphids are very common on apple trees over the entire State.

Wisconsin. C. L. Fluke (April 25): Apple grain aphid hatched between April 10 and 14 in Door County and is quite numerous. Green apple aphid had not hatched by April 22.

J. A. Callenbach (April 25): Apple grain aphids and green apple aphids are relatively scarce in Crawford County, in the southwestern part of the State. Syrphids are very active and should reduce the population even further.

Minnesota. A. A. Granovsky (April 15): Aphids are hatching in moderate numbers on fruit trees at Saint Paul.

#### LEAFHOPPERS (Cicadellidae)

Indiana. L. F. Steiner (April 24): Adult apple leafhoppers are very abundant in some orchards at Vincennes and evidence of considerable feeding on the new foliage is common.

#### COMSTOCK'S MEALYBUG (Pseudococcus comstocki Kuw.)

Virginia. G. J. Haeussler (April): Hibernating egg masses ranged from scarce to very abundant in Albemarle County apple orchards and populations varied greatly within individual orchards. Eggs began to hatch on April 16, 6 days earlier than last year, and first-stage nymphs were first observed feeding on April 21, 11 days earlier than last year. Hibernating eggs also observed during April in Clarke, Nelson, Botetourt, and Roanoke Counties. Hibernating cocoons of the parasite Clausenia purpurea Ishii are numerous in some orchards but many of these have been attacked by secondary parasites. The recently introduced Allotropia sp., a Japanese parasite, has overwintered successfully in several localities in which it was colonized last year.

West Virginia. G. J. Haeussler (April 17): Hibernating eggs are present in great numbers in one apple orchard at Knowlesville, in Berkeley County, and present though scarce in an orchard at Ranson, in Jefferson County. No hatched eggs observed today, although many appear about ready to hatch. Hibernating mummies of the introduced Allotropia sp. are very abundant at Knowlesville on trees in which this parasite was colonized last year.

#### SCURFY SCALE (Chionaspis furfura Fitch)

Pennsylvania. T. L. Guyton (April 14): Somewhat numerous on apple at Coppersburg, Lehigh County, in southeastern Pennsylvania.

A BOSTRICHID (Bostrichus bicornis Web.)

Oklahoma. F. A. Fenton (April 25): Reported on apple trees at Okmulgee.

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Alabama. F. E. Guyton (April 17): Abundant on foliage of young apple trees at Auburn. No apparent damage.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

New Hampshire. J. G. Conklin (April 19): First hatching observed today on apple trees at Durham, in southeastern New Hampshire.

Connecticut. P. Garman (April 24): Fairly abundant on fruit trees. Egg hatching is about normal.

New York. R. W. Dean (April 24): Overwintering eggs began hatching on April 20 in the Hudson Valley, approximately 10 days earlier than usual.

N. Y. State Coll. Agr. News Letter (April 14): Eggs of the European red mite began to hatch in the vicinity of Kinderhook, Columbia County, on April 20. Today, April 26, the hatch is complete. In western New York eggs are numerous on peaches.

Pennsylvania. H. M. Steiner (April 28): First eggs hatched on April 16 in the vicinity of Arendtsville. Half of 1,000 marked eggs examined daily were hatched by April 20 when Stayman, Winesap, and McIntosh apple trees were in the full-pink stage.

Michigan. R. Hutson (April 22): Eggs are common on apple trees all over the State and are also numerous on plums and sweet cherries.

PEACH

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Virginia. A. M. Woodside (April 18): First adults jarred from peach trees in Albemarle County on April 15. Larger numbers on April 17. First adults found in Augusta County on April 16.

Georgia. W. H. Clarke and C. H. Alden (April 18): First adults collected by jarring trees at Cornelia, in northeastern Georgia, on April 11. Sixty-three were taken from 15 peach trees on April 17.

O. I. Snapp (April 21): Adults began to leave hibernation in large numbers on April 3, after the mean temperature was above 60° F. for several successive days; the first adults were seen on March 17, and mating was observed on April 3. Adults reached the center of peach orchards on April 4. Peak of appearance was reached on April 15, when an average of 5.4 beetles per tree were removed from test

trees. First larvae of the season observed on peaches on the morning of April 19.

Alabama. J. M. Robinson (April 7): Peach curculio found in plums at Auburn today.

Mississippi. L. J. Goodgame (April 25): Plum trees reported damaged in Chickasaw and Monroe Counties.

Pennsylvania. H. M. Steiner (April 28): First adults taken in Adams County by jarring trees on April 15 at the pink stage of Elberta variety. Adults numerous 3 to 4 rows from borders at full bloom on April 19 in the vicinity of Arendtsville.

Illinois. S. C. Chandler (April 22): First adults jarred at edge of peach orchard today at Carbondale, in the southern part of the State.

Kentucky. W. A. Price (April 25): Adults active by April 19 at several widely scattered points in the State. Most of them were jarred from plum trees, a few being taken on peach.

#### A CURCULIONID (Achrastenus griseus Horn)

Texas. W. S. McGregor (April 23): Reported from Brazos County on March 25. Completely defoliating young peach trees in Robinson and Milam Counties.

#### BEETLES (Coleoptera)

Virginia. A. M. Woodside (April 17): Diabrotica duodecimpunctata F. and Epilachna borealis F. were jarred from peach trees in Albemarle County today.

#### SAY'S BLISTER BEETLE (Pomphopoea sayi Lec.)

Georgia. T. L. Bissell (April 12): Stripping Early Rose peach trees in an orchard at Woodbury, in west-central part of the State.

#### SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Mississippi. C. Lyle (April 25): Injury to peach trees reported in the Meridian area and in Hinds and Claiborne Counties.

#### PEACH BORER (Conopia exitiosa Say)

Florida. O. I. Snapp (April 14): Heavy infestation in home orchards near Starke, in northern Florida.

Mississippi. C. Lyle (April 25): Light infestations in peach trees reported from the Meridian area and from Claiborne and Bolivar Counties.



Nebraska. H. D. Tate (March 28): Reported from Nemaha County today.

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Georgia. W. H. Clarke and C. H. Alden (April 18): First moths caught in bait traps at Cornelia, in northeastern Georgia, on April 17.

GREEN PEACH APHID (Myzus persicae Sulz.)

Utah. G. F. Knowlton (April 14): Aphids have hatched and are attacking peaches at Providence. Some second-generation nymphs present. (April 25): Damaging some peach trees at Brigham.

C. J. Sorenson (April): Hatching in northern part of State and being fed upon by ladybeetles in considerable numbers.

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Georgia. O. I. Sharp (April 21): Very abundant in several peach orchards near Fort Valley, central Georgia, having caused considerable damage in one young orchard.

PLANT BUGS AND LEAFHOPPERS (Hemiptera)

Virginia. A. M. Woodside (April 17): Leptocoris trivittatus Say, Erythroneura volucris Beam, and Lygus pratensis oblineatus Say, were commonly jarred from peach trees in Albemarle County. Some of the unfolding leaves already show the characteristic stippling by E. volucris. (Det. by P. W. Oman.)

PEACH AND PLUM SLUG (Eriocampoides amygdalina Rohw.?)

Mississippi. C. Lyle (April 25): Sawfly larvae observed on peach trees in Holmes County, but no specimens were received.

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

New York. N. Y. State Coll. Agr. News Letter (April): In the Hudson River Valley flies were observed as early as April 7, and by the middle of the month eggs were somewhat numerous. The first hatching was observed on April 25. Development in the Lake district is not far behind, but no hatching has been observed.

Washington. J. F. Cooper (April 15): Specimens collected at Chelan on April 9. (Det. by P. W. Oman.)

PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York. N. Y. State Coll. Agr. News Letter (April 12): In eastern New York pear thrips appeared on April 12.

PEAR MIDGE (Contarinia pyrivora Riley)

New York. N. Y. State Coll. Agr. News Letter (April 21): Numerous in eastern New York, in Orange County, on April 18; first observed in Ulster County on the same date. (April 28): Observed on Long Island ovipositing in pear buds, just beyond the cluster-bud stage.

A BORER (Anisandrus pyri Peck)

Washington. E. J. Newcomer (April 10): A borer, probably this species, reported as boring into trunks of pear trees at Yakima in considerable numbers.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Oregon. B. G. Thompson (April 12): Present on Bartlett pear tree at Brooks, in Marion County.

CHERRY

CHERRY CASEBEARER (Coleophora pruniella Clem.)

Wisconsin. C. L. Fluke (April 25): At an extremely low ebb in Door County.

BLACK CHERRY APHID (Myzus cerasi F.)

New York. N. Y. State Coll. Agr. News Letter (April): Nymphs observed on sweet cherries at Ithaca on April 10. First observed in eastern New York on April 11, and in western New York on April 15 and 16.

PLUM

A CURCULIONID (Peritelinus oregonus Van Dyke)

Oregon. P. Mowry (April 21): Chewing leaves of Italian plum at Riddle, in Douglas County, southern Oregon.

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Mississippi. C. Lyle (April 25): Reported from Copiah, Jones, and Stone Counties.

A SCALE (Lecanium sp.)

Oregon. S. C. Jones (March 17): Third-instar present in Keizar Bottom district today. Found on prunes and filberts.

CURRENT

CURRENT APHID (Capitophorus ribis L.)

New York. N. Y. State Coll. Agr. News Letter (April): An examination of currant plantings in Ulster County on April 25 showed that the currant aphid had hatched and had apparently been feeding for a few days.

IMPORTED CURRENT WORM (Pteronidea ribesii Scop.)

New York. N. Y. State Coll. Agr. News Letter (April): Examination of currant plantings in Ulster County on April 25 showed the imported currant worm adults actively migrating and ovipositing. Some eggs had hatched and the oldest larvae appeared to be only 1 or 2 days old.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Georgia. T. L. Bissell (April 22): Adults of two-color forms are abundant on branches of muscadine grapes at Experiment; no damage noticeable. Leaves about one-third grown.

Washington. L. G. Smith (April 22): Reported as active in a vineyard at Sunnyside, in Yakima County, on February 22. Adults very active and seemed to be concentrated on the rye cover crops between the rows of vineyards in the Kennewick district on March 28.

GRAPEVINE APHID (Aphis illinoisensis Shim.)

Alabama. T. E. Guxton (April 17): At Auburn many adults present on well-sprayed grapevines that had just begun to leaf. First time it has been numerous in this city.

GRAPE LEAF FOLDER (Desmia funeralis Hbn.)

California. D. F. Barnes (March): Spring examination of samples of vineyard debris for overwintering pupae from vineyards in the Fowler-Parlier district, southeast of Fresno, taken between February 27 and March 6, indicated a small spring population. Vineyards had been heavily infested in fall of 1940.

PECAN

PECAN LEAF CASEBEARER (Acrobasis juglandis Le B.)

Texas. W. C. Pierce (April 4): Population approximately quadrupled in one orchard at Bastrop during 1940. Hibernacula of Acrobasis sp. were abundant on March 5.



PECAN NUT CASEBEARER (Acrobasis caryae Grote)

Texas. C. B. Nickels and W. C. Pierce (March): Population counts at Crystal City, in southern Texas, on March 7-8 showed that overwintered hibernacula infested 10 and 13 percent of the shoots on Burkett variety pecan trees in two orchards. On March 24 two orchards in central Texas showed that overwintered hibernacula infested 2.6 and 3.1 percent of the shoots on trees of the same variety.

APHIDS (Aphidae)

Georgia. P. M. Gilmer (April 26): Pecan aphid easily found in Tift, Lowndes, and Turner Counties.

Texas. F. C. Bishopp (April 5): Longistigma caryae Harr. present on live oak twigs and pecan at Uvalde. (Det. by P. W. Mason.)

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

Mississippi. C. Lyle (April 25): Reported as injuring pecan trees in the Meridian district and in Yazoo County.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Texas. C. B. Nickels (April 4): Unusually abundant on pecan in an orchard at Comanche, in the central part.

FILBERT

FILBERT BUD MITE (Eriophyes avellanae Nal.)

Oregon. B. G. Thompson (April 9): Reported as often destroying large quantities of buds on the Deviana filbert trees at Forest Grove, in northwestern Oregon. Also found on witch-hazel.

CITRUS

GREEN CITRUS APHID (Aphis spiraecola Patch)

Florida. H. T. Fernald (April 9): Appeared on new growth about middle of February at Winter Park, but disappeared during a period of cold weather. Appeared suddenly in great numbers around April 1, when the weather became warm, and most of the new tips have all of the leaves tightly rolled, even though sprayed before much rolling occurred.

M. R. Osburn (April 22): Heavy infestations observed on flush growth of citrus near Fort Pierce, lower east coast.

J. J. R. Watson (April 23): Very abundant all month, about the heaviest infestation since 1925. Young citrus leaves have been seriously curled over most of the Citrus Belt.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida. H. T. Fernald (April 12): Adults now very abundant on citrus trees in Winter Park.

J. R. Watson (April 23): Adults of D. citri and D. citrifolii Morg. have been generally seen on young growth in Citrus Belt during the last month.

Mississippi. C. Lyle (April 25): Specimens infesting Cape-jasmine received from Copiah County on April 2. Reports of injury were received from the Meridian district and Harrison County, where privet and gardenia plants are the hosts. Adults are beginning to emerge in the southeastern part of the State.

A THRIPS (Frankliniella cephalica bispinosa Morg.)

Florida. M. R. Osburn (April 22): Many observed in grapefruit blooms on lower east coast.

FIG

A TENEBRIONID (Blapstinus rufipes Csy.)

California. D. F. Barnes (March 11): Heaviest infestation seen since 1930 on a fruit ranch northeast of Fresno, in a large number of excelsior pads discarded in 1940 by peach pickers. An average of 430 beetles found in each of 6 pads examined.

FIG SCALE (Lepidosaphes ficus Sign.)

California. C. K. Fisher (April 4): Eggs beginning to hatch today on fig trees at Fresno.

DATES

RED DATE-PALM SCALE (Phoenicococcus marlatti Ckll.)

California and Arizona. C. K. Fisher (April 8): Overwintered females fairly numerous on leaf bases of date palms at Tempe, in southern Arizona. Very few crawlers present, indicating that reproduction had only begun and probably had not spread to new growth. About same conditions found at Indio, in southern California, but no crawlers observed.

## TRUCK - CROP INSECTS

### VEGETABLE WEEVIL (Listroderes obliquus Klug)

South Carolina. N. Allen and H. N. Pollard (April 15): The first injury caused by larvae during the current season was observed on plant-bed tobacco plants on April 10. Since that time severe injury has been noted on a few plants in several beds in Florence County. A few injured plants were observed in a bed northeast of Mullins, Marion County, in the eastern part of the State, on April 15.

Georgia. E. H. Frederic (April 15): First noticed feeding on radish on April 7 at Thomasville in southern Georgia. Later found feeding and causing moderate damage on sweetpeas, strawberries, and a wild host.

Florida. J. R. Watson (April 23): The vegetable weevil has been sent in from Panama City, in Bay County, northern Florida, the most southern point reported from Florida. It is also doing severe damage to turnips at Monticello in the northern part of the State.

S. L. Lyons (April 9): Bugs very destructive to plants at Jacksonville. (Det. by W. H. Anderson.)

F. S. Chamberlin (April 17): First found attacking tobacco in Gadsden County in northern Fla. in 1937, and since that time it has become a tobacco-plant-bed pest of some importance. During the last few seasons all of the injury has been caused by the larvae, but now the adults have been found causing serious injury to newly set tobacco plants. In the two infested fields observed, the weevils had evidently migrated into the tobacco from outside areas, as the infestations were confined to the outer rows.

Mississippi. C. Lyle (April 23): Reports of injury to cabbage received from Copiah County, in central part of State, to turnips in Holmes County, in central part of State, and light damage in the Meridian area in the eastern part of the State.

### SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata F.)

Virginia. L. W. Brannon (April 15): First beetles observed feeding in a field of snap beans at Norfolk on April 15, 3 days earlier than the first emergence last year.

South Carolina. C. F. Rainwater (April 26): Observed to be numerous in crimson clover and vetch that hadnot been turned under at St. Matthews, in Calhoun County, central part of State.

Kansas. H. R. Bryson (April 24): The first beetles this spring were taken today at Manhattan, northeastern part of State.



FLEA BEETLES (Halticinae)

Pennsylvania. B. F. Coon: (April 28): First appearance in 1941. Specimens collected on weed hosts at Lancaster.

South Carolina. O. L. Cartwright (April 30): Severe injury reported on tomato, potato, but mostly on corn at Walhalla, northwestern part of the State.

Mississippi. C. Lyle (April 25): Damage to turnips by flea beetles supposed to be Phyllotreta sp. was reported from Oktibbeha County and from the Durant area, both in the central part of the State.

Missouri. L. Haseman (April 25): Some early work of flea beetles on garden crops has shown up since the middle of April in central Missouri.

IMBRICATED SNOUT BEETLE (Epicaerus imbricatus Say)

Maryland. E. H. Siegler (April 24): Weevils found feeding on foliage and buds of apple grafts in nursery at Beltsville, in central part of State. (Det. by L. L. Buchanan.)

Kentucky. W. A. Price (April 25): Damaging onions at Bowling Green, southeastern Kentucky.

Mississippi. C. Lyle (April 21): Adults sent for identification on April 21 from Lafayette County in the northern part of the State.

A SCARABAEID (Diplothesis sp.)

Texas. R. K. Fletcher (April 18): Adults reported to be injuring a garden in Harris County.

SEED-CORN MAGGOT (Hylemya cilicrura Rond.)

New York. N. Y. State Coll. Agr. News Letter (April 28): Adults prevalent during the last week on Long Island, after having begun to appear in the previous week.

Ohio. T. H. Parks (April 29): Seed beans in Lawrence County were destroyed in the ground during April. An entire planting of early beans was destroyed. A rye cover crop was plowed under early in the winter.

Utah. G. F. Knowlton (April 25): Injured peas planted before the recent storms in Cache and Weber Counties, in the northern part of the State.

SOWBUGS (Oniscidae)

Mississippi. C. Lyle (April 1): Specimens of pillbugs from Humphreys County, in western Miss., received on April 1; also reports of injury to tender plants in the southeastern part of the State, and to a garden in Hinds County in the western part of the State. Very abundant both in hotheds and out of doors at State College, in the eastern part of the State.

POTATO AND TOMATO

POTATO TUBER WORM (Gnorimoschema operculella Zell.).

Minnesota. A. G. Ruggles and C. E. Michel (April 16): Potato tuber moth not established, so far as we know, but found in storage places near University Farm.

A. A. Granovsky (April 15): Found to be present in potatoes stored in warm cellars from two localities in vicinity of St. Paul and Minneapolis about 15 or 20 miles apart. It is believed to be the first record for Minnesota, actually determined in November of 1940 by A. A. Granovsky and A. G. Peterson while examining tubers for pit scab. Subsequent examination of several potato cellars of commercial potato growers yielded negative results.

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Virginia. L. W. Brannon (April 15): First beetles observed crawling around at Norfolk today, having apparently emerged from the freshly cultivated soil.

H. G. Walker and L. D. Anderson (April 25): Rather abundant in some potato fields at Norfolk.

South Carolina. F. Sherman (April 19): Adult observed defoliating spinach plants at Clemson, in the northwestern part of the State.

Mississippi. C. Lyle (April 25): Reports of injury to potatoes, as well as some injury to tomato plants, have been received from nearly all sections of the State.

POTATO PSYLLID (Paratrioza cockerelli Sulc)

Arizona. V. E. Romney (March 28): A female was depositing large numbers of eggs on Lycium spp. late in March and conditions appear favorable for production of large numbers on wild hosts.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Virginia. L. W. Brannon (April 18): First beetle collected in the field on snap beans today at Norfolk. This is 11 days earlier than the first emergence in 1940 and about a week earlier than the average emergence date for the last several years. Emergence had apparently just begun, as only 3 beetles were found on 16 rows of beans 200 feet long.

Florida. F. S. Chamberlin (April 21): Adults are very abundant in bean-fields in Gadsden County, in the northwestern part of the State.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Virginia. L. W. Brannon (April 18): First adult collected in the field feeding on young snap beans today at Norfolk. From frequent examinations made all along, it appears that April 18 is the date of first field emergence in this locality, 12 days later than that for last year.

South Carolina. W. M. Upholt (April 23): Rather plentiful on young beans and eating the leaves.

Georgia. T. L. Bissell (April 14): A few adults out feeding on the first beans and cowpeas at Experiment in the west-central part of the State.

Mississippi. C. Lyle, et al. (April 25): Injury to beans and cowpeas reported from the southeastern district, the Durant district in the central part of the State, and from around Meridian in the east-central part of the State. Damage to beans, probably caused by this species, reported from Coahoma and Tate Counties in the northern part of the State.

APHIDS (Aphididae)

South Carolina. C. F. Rainwater (April 26): Complaints of aphid injury to snap beans in Florence County, in the eastern part of the State.

PEAS

PEA WEEVIL (Bruchus pisorum L.)

Utah. G. F. Knowlton and W. E. Peay (April): Pea weevils were emerging from home-saved garden pea seed at a home in Logan, in the northern part of the State, on April 9. Overwintered pea weevils found in North Logan and Providence fields, in the northern part of the State, had a mortality of approximately 40 percent on April 14.

G. F. Knowlton (April 20): Fifty percent of the pea weevils found in hibernation at Smithfield, in the northern part of the State, were alive.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

New Hampshire. J. G. Conklin (April 20): An adult was caught in the vicinity of a home garden in Durham, in the southeastern part of the State.

New York. N. Y. State Coll. Agr. News Letter (April): A few imported cabbage butterflies were observed on Long Island, April 21, ovipositing on some young cabbage plants.

Florida. H. T. Fernald (May 1): Adults are much more abundant at Winter Park than they have been for several years.



Mississippi. C. Lyle, et al. (April 25): Reported to be rather general over the northeastern section of the State. Some injury to cabbage in the Durant district and rather light general infestations in Lamar, in the northern part of the State, and Pearl River County, the latter county and Durant district being in the west-central part of the State.

Missouri. L. Haseman (April 25): Only a few butterflies in evidence throughout central Missouri since the early part of April.

GREENHOUSE LEAF TIER (Phlyctaenia rubigalis Guen.)

Louisiana. C. E. Smith (March 12): Larvae collected feeding on under side of leaves of cabbage at Baton Rouge, in the southern part of the State. (Det. by C. Heinrich.)

CABBAGE SHOOT WEEVIL (Ceutorhynchus assimilis Payk.)

Washington. L. G. Smith (April 8): Weevils found in large numbers south of Mount Vernon, in the northern part of the State, and not so abundant to the north on April 8. About 50 weevils found in 1 cluster of blossoms. Cabbage and turnip plants were being attacked. Weevils reported on mustard on March 28 in the Montesano district of Grays Harbor County, in the western part of the State.

CABBAGE APHID (Brevicoryne brassicae L.)

Tennessee. G. M. Bentley (April 14): About the usual numbers on early set cabbage.

Mississippi. C. Lyle, et al. (April 25): Plant lice, supposed to belong to this species, were reported to be causing injury to cabbage in the northeastern section, in the Meridian district, and in the Jackson district.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia. H. G. Walker and L. D. Anderson (April 14): Active in a kale field at Norfolk, but very few in numbers.

Alabama. J. M. Robinson (April 1): Found on cabbage at Auburn, in the eastern part of the State.

Mississippi. C. Lyle, et al. (April 25): Specimens received from Attala and Lincoln Counties late in March and early in April. Small field of rape completely ruined in Oktibbeha County. Complaints of injury to turnips in Attala and Holmes Counties and to cabbage in the Meridian area.

CABBAGE MAGGOT (Hylemya brassicae Bouche)

New York. N. Y. State Coll. Agr. News Letter (April 28): First adults found in eastern New York, on Long Island, from April 19 to 21, where they were fairly abundant. Egg laying has begun, and as many as 10 eggs per plant were found around cauliflower plants on April 25

at Valley Stream, Nassau County. Flies are also prevalent in Rockland County.

### MELONS

#### A WEEVIL (Lepidocricus herricki Pierce)

Alabama. J. M. Robinson (April 12): Found on watermelon and cantaloups at Chatom, in the southwestern part of the State, on April 12.

### ASPARAGUS

#### ASPARAGUS BEETLE (Crioceris asparagi L.)

South Carolina. F. Sherman and W. C. Nettles (April 25): Unusually severe in southcentral section of the State in Aiken, Allendale, Bamberg, Barnwell, Edgefield, and Saluda Counties, and north to Chesterfield County.

Iowa. H. E. Jaques (April): Present in Davis County, in southeastern Iowa.

Washington. L. G. Smith (April 22): The writer found many beetles still in hibernation beneath the bark of grape trunks in the Kennewick area of Benton County, in the southern part of the State, on March 28. Some were active and crawling around on the ground. Growers had just started cutting asparagus.

R. S. Lehman (April 19): Extensive damage to young asparagus plants in Walla Walla.

### SPINACH

#### GREEN PEACH APHID (Myzus persicae Sulz.)

Virginia. H. G. Walker and L. D. Anderson (April 25): Spinach aphids were very scarce in most spinach fields in the Norfolk area, in the southeastern part of the State, but rather abundant in a few fields in the Western Branch area, in the southwestern part of the State.

### SWEETPOTATO

#### SWEETPOTATO FLEA BEETLE (Chaetocnema confinis Crotch)

Mississippi. J. E. Lee (April 25): Light infestation reported from Lamar County in the southeastern part of the State.

### STRAWBERRY

#### WEEVILS (Curculionidae)

Washington. L. G. Smith (March 26): Severe damage to strawberries by the strawberry root weevil on a farm at Selah, in the southern part of the State, was reported on March 26. The weevils were more abundant than at the same date last year, from 5 to 10 larvae being found in many hills.

Oregon. J. Schuh (April 21): Adults of Brachyrhinus ovatus L. are not uncommon on strawberries and are laying eggs in the Willamette Valley.

STRAWBERRY WEEVIL (Anthonomus signatus Say)

Massachusetts. A. I. Bourne (April 23): Adults began to emerge in hibernating cages on April 20 to 21.

New York. N. Y. State Coll. Agr. News Letter (April 28): Strawberry weevils were beginning to cut buds in Orange County, eastern New York, on April 23.

Kentucky. W. A. Price (April 25): Strawberry bud weevil reported as doing serious damage to strawberry patches in the Bowling Green district. Some growers estimate a possible crop loss of 30 percent.

Mississippi. C. Lyle (April 25): One specimen sent from Rankin County with the report that youngberry plants were being injured.

STRAWBERRY LEAF ROLLER (Ancylis comptana Froel.)

Missouri. L. Haseman (April 22): Reported that in southwestern Missouri the moths were on wing, laying eggs, and that some eggs had already hatched.

STRAWBERRY FRUITWORM (Cnephasia longana Haw.)

Oregon. R. G. Rosenstiel (April 23): The omnivorous leaf-tier is webbing flax and damaging strawberries in the Willamette Valley, in the northwestern part of the State.

STRAWBERRY APHID (Capitophorus fragaefolii Ckll.)

Oregon. H. E. Morrison (April 12): At Corvallis, in the western part of the State, the aphids are building up very rapidly and if they continue at the same rate they will probably be a serious problem to berry growers.

A SPITTLE BUG (Philaenus leucophthalmus L.)

Oregon. R. G. Rosenstiel (April 23): The strawberry spittle bug is two-thirds grown and damage to strawberries is about at the peak for this year in the Willamette Valley.

STRAWBERRY PAMERA (Orthaea vincta Say)

Florida. J. R. Watson (April 23): Pameras are increasing on strawberries.



COMMON RED SPIDER (Tetranychus telarius L.)

Florida. J. R. Watson (April 23): Red spiders are increasing on strawberries.

Oregon. H. E. Morrison (April 12): In Corvallis, western Oregon, last year, red spiders destroyed 10 acres of strawberries. They are just beginning to make their appearance and are 6 weeks in advance, as compared to last year.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula F.)

South Carolina. N. Allen and H. N. Pollard (April 21): This insect was found severely injuring tobacco plants in plant beds in Florence County, in the eastern part of the State. The injury was typical of that inflicted by the beetles when they occur in outbreak numbers during the summer months.

Florida. F. S. Chamberlin (April 15): They appear to be more abundant on newly-set tobacco than in the last several seasons in Gadsden County, in the northwestern part of the State.

AN ARCTIID (Apantesis vittata phalerata Harr.)

Kentucky. W. A. Price (April 25): Feeding on tobacco plants in a bed at Greensburg, in the southern part of the State.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

South Carolina. F. F. Bondy, et al. (April 12): In Florence County, more weevils were found in the ground trash and more weevils are active in the cages than in 1940. (April 19): A total of 185 weevils were active in the 55 cages on April 18, as compared to none in 1940, and 73 in 1939.

C. F. Rainwater (April 26): Weevils have been very active in the cages this week. A total of 238 were active in the 55 cages today, as compared with none in 1940 and 77 in 1939.

Georgia. P. M. Gilmer (April 12): None seen in the open as yet in Tift, Berrien, Cook, Lowndes, and Echols Counties. Examination for weevils impossible as little cotton is up. Rather dry conditions have undoubtedly held weevils in hibernation.

Florida. C. S. Rude (April 5): Very active in hibernation cages for week ended April 5. Eight live weevils observed in cages having forest leaves and 13 in those having coarse grass as bedding. (April 26): During the week ended April 26, 39 active weevils were observed in the hibernation cages in which forest leaves were used as bedding material and 26 in the cages where coarse grass was used. No weevils observed in the field.

Louisiana. R. C. Gaines, et al. (April): Boll weevils taken on field flight screens in Madison Parish are as follows: Week ended April 5--2, as compared to none in 1939 and 1940; April 18--1, as compared to none in 1940 and 5 in 1939; April 26--3, as compared to none in 1940 and 5 in 1939.

Texas. K. P. Ewing, et al. (April 5): Weevils continue active in the hibernation cages in McLennan County. Highest number observed in any cage was 7. (April 17): In McLennan County, 23 observed active on April 17 in 1 cage located in the woods and containing oat straw; other cages showed more activity of weevils than during previous weeks.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. L. W. Noble (April 19): At Presidio moth emergence from the winter hibernation cages increased steadily during the week ended April 19. Combined total taken from all cages was 271 this week, as compared to 31 for last week. (April 26): Moth emergence in the hibernation tent at Presidio increased from 271 moths for last week to 593 for this week.

BOLLWORM (Heliothis armigera Hbn.)

Texas. K. P. Ewing, et al. (April 18): None found during the week ended April 18 at Waco, McLennan County. E. E. Ivy reported finding eggs deposited on bluebonnets at Pharr, Tex., and also on corn silks at Pharr on April 16. He reports as follows: "Our fruitfly traps are screened against moths, but occasionally a screen drops out and such a trap is always filled with moths, among which are many bollworm moths." (April 25): First moth emerged from hibernation cages in McLennan County on April 25, only one and it was from a cage containing heavy "Blackland" soil.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

Texas. K. P. Ewing, et al. (April 18): In McLennan County, during the week between April 12 and 18, inclusive, 3,251 nymphs emerged from the 34 emergence cages, as compared to the 16,115 of the preceding week, and 30,248 for 2 weeks ago. The highest emergence from a single cage was 597 (cage 16). Greatest emergence during a single day from any one cage was 226, from cage No. 1. Total emergence is 52,981. (April 25): A total of 156 nymphs emerged from the 34 cages between April 19 and 25, inclusive; however, the cages were inspected on only 3 of these days, April 19, 21, and 25, rain preventing any more inspections. Total emergence for the season is 53,137.

A. J. Chapman (April 12): First hopper noted on seeding cotton in the Brownsville area on April 10. Sweepings made on 2 weed host plants in the Brownsville area netted 319 adults and 1.5 nymphs per 100 sweeps on horsemint and 99 adults and 13.5 nymphs per 100 sweeps on evening-prinrose.

APHIDS (Aphididae)

South Carolina. C. F. Rainwater (April 26): Root aphids are not so numerous on cotton as they were at this time last year.

Florida. C. S. Rude (April 26): Observed on cotton in one field in Marion County during the week ended April 26, but the predators seemed to be holding them in check.

MEALYBUGS (Pseudococcus spp.)

South Carolina. C. F. Rainwater (April 26): More numerous on cotton, soybeans, and several wild host plants than has been noted heretofore.

F O R E S T   A N D   S H A D E - T R E E   I N S E C T S

CANKERWORMS (Geometridae)

Connecticut. P. Wallace (April 23): Flights of male spring cankerworm (Paleacrita vernata Peck.) and fall cankerworm (Alsophila pometaria Harr.) less abundant than usual early in April. Egg clusters scarce on elm at New Haven, Cheshire, Hamden, and North Branford.

New York. N. Y. State Coll. Agr. News Letter (April): Egg masses of the fall cankerworm are numerous on apple on Long Island and in many neglected blocks in Niagara County.

Ohio. T. H. Parks (April 23): A few newly hatched larvae of fall and spring cankerworms were observed on expanding elm leaves along a stream at Columbus on April 20 and 22. Not abundant as yet.

Illinois. W. P. Flint (April 22): Cankerworm eggs began hatching approximately April 14, and have been hatching in large numbers up to April 21.

Minnesota. T. L. Aamodt (April 16): Adult spring cankerworm males abundant in Red River Valley, in the western part of the State.

Iowa. H. E. Jaques (April): Light infestation of cankerworms in Louisa, Henry, Jefferson, and Davis Counties, all in the southeastern section of the State.

Missouri. L. Haseman (April 25): A few moths still observed on April 21. No evidence of young larvae.

Oklahoma. C. F. Stiles (April 23): The spring cankerworm reported as defoliating orchard and other trees throughout the central portion of the State, being especially numerous in Love, Jefferson, Oklahoma, and Seminole Counties.

F. A. Fenton (April 25): Spring cankerworm reported as defoliating many fruit and shade trees in Okemah, in the central part of the State.



Texas. R. K. Fletcher (April): The spring cankerworm was reported from Brazos County, in the eastern section of the State, on April 6, and as being common on elm and oak at College Station, Dallas County, on April 13. Defoliating elms. Serious damage to fruit and shade trees reported.

E. W. Laake (April): P. vernata appeared in outbreak proportions in the vicinity of Dallas during the first week in April. More abundant, more widely distributed, and distinctly more destructive than last year.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

New York. E. P. Felt (April 23): Caterpillars have hatched in warmer areas in the Greater New York area. Infestations in regions bordering Catskills expected to be particularly serious.

N. Y. State Coll. Agr. News Letter (April 21): On Long Island the egg masses have hatched and damage is appearing.

Mississippi. C. Lyle (April 25): Specimens received from Forrest and Jones Counties, where they were feeding on oak. Reported as injuring trees in Jefferson Davis County, and a number of larvae were found in several places in Lamar, Jones, and Pearl River Counties. Numerous at Laurel.

TENT CATERPILLARS (Malacosoma spp.)

Utah. G. F. Knowlton (April 5): Severely attacking poplars, willows, and many cultivated and wild shrubs at Leeds, Saint George, and Washington, all in Washington County, southwestern Utah. (April 26): A few shrubs and trees damaged at Logan and Ogden, in the northern part of the State; caterpillars still small.

Washington. E. C. Durdle (April 2): Caterpillars reported hatching in large numbers in Clark County, in the southwestern part of the State.

GYPSY MOTH (Porthetria dispar L.)

Vermont. H. L. Bailey (April 30): Survey of street and shade trees in towns along the Connecticut River, on the eastern border of Vermont, from the Massachusetts line to a point about two-thirds of the distance to the northern border, showed from 15 to 100 percent infested with one or more egg masses. Infestation heaviest at the southern end.

CALIFORNIA PRIONUS (Prionus californicus Mots.)

Oregon. H. E. Morrison (April 18): At Brown's Island, 90 percent of cedar poles and 100 percent of softwood poles were infested with an average of 7 to a pole. Cedar poles averaged 5 and softwoods 12. Practically all poles severely damaged, having been on the ground 7 to 8 years.

A SCALE (Lecanium coryli L.)

Washington. M. H. Hatch (April 15): Specimen found attacking Betula alba and Ulmus orientalis. (Det. by L. M. Russell.)

PUTNAM'S SCALE (Aspidiotus ancylus Putn.)

Nebraska. H. D. Tate (April 16): Reported on young elm trees in Stanton County, in the northeastern section of the State, on April 1.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

New Hampshire. J. G. Conklin (April 24): Many specimens received. Report as prevalent in houses during April.

Massachusetts. E. P. Felt (April 23): Reported as occurring in considerable numbers in dwellings in eastern part of State.

Connecticut. E. P. Felt (April 23): Reported as being numerous in several dwellings in northeastern part of State.

Rhode Island. B. Eddy (April 22): Reported as numerous in houses throughout the State.

New Jersey. W. C. Baker (April 15): Active overwintered adult observed in Morris County, in the northern part of the State. Beetle activity reports have been received since April 15.

Pennsylvania. T. L. Guyton (April): Breaking hibernation in houses in New Hope, Valley Forge, and Philadelphia on April 20, 21, and 22, respectively, in the southeastern part of the State.

ELM BORER (Saperda tridentata Oliv.)

Pennsylvania. T. L. Guyton (April 5): Attacking elm at New Hope, in Bucks County.

A MIDGE (Diptera)

Kansas. H. R. Bryson (April 20): The larvæ of a small midge were found for the first time infesting the blossoms of American elm at Manhattan. Under some trees the larvae were so numerous they could be collected by the hundreds. Since this is the first report, the insect has not been identified but is being reared. The amount of injury has not been confirmed.

ELM SCURFY SCALE (Chionaspis americana Johns.)

Delaware. E. P. Felt (April 23): Locally abundant in Wilmington area.

FIR

BALSAM TWIG APHID (Mindarus abietinus Koch)

Pennsylvania. G. B. Slesman (April 21): Very prevalent on Abies concolor and A. veitchi in Philadelphia area. Practically every bud examined showed a cluster of young immature aphids.

LOCUST

LOCUST BORER (Cyrtene robiniae Forst.)

Rhode Island. B. Eddy (April 22): Reported as a household insect.

Nebraska. H. D. Tate (April 14): Specimen received from Douglas County, in the eastern part of the State, today.

A BAGWORM (Oiketicus toumeyi Jones)

Arizona. R. A. Flock (April 19): Common on wild mimosa and on locust and mesquite trees in yards at Tucson. Completely defoliated locust and mesquite trees last year at Benson.

A MITE (Tetranychus althaeae von Hanst.)

Maryland. G. V. Johnson (March 13): Spider mites collected on young locust at Beltsville. (Det. by E. A. McGregor as probably T. althaeae.)

MAPLE

WALNUT SCALE (Aspidiotus juglans-regiae Comst.)

Virginia. A. M. Woodside (April 10): Present on silver maple at Staunton.

WHITE OAK CLUB GALL (Andricus clavulus O.S.)

New England and New York. E. P. Felt (April 23): Somewhat common at Tappan, eastern New York, and widely distributed in southwestern New England.

PUBESCENT OAK KERMES (Kermes pubescens Bogue)

Connecticut. E. P. Felt (April 23): Somewhat serious infestation found at Stamford.

New York. E. P. Felt (April 23): Reported from Tuxedo Park, in eastern New York.

PINE

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Comst.)

North Carolina. A. H. Bronson (February 17): Specimens reared from pupae collected on the Duke Forest. (Det. by C. Heinrich.)



WHITE PINE WEEVIL (Pissodes strobi Peck)

New Hampshire. J. G. Conklin (April 19): Observed feeding in numbers on white pine at Durham.

Massachusetts. J. V. Schaffner, Jr. (April 15): Adults rather abundant on terminals of white pine in a plantation at Weston, in the eastern part of the State.

Connecticut. J. V. Schaffner, Jr. (April 21): Reported as abundant throughout the State. Very early season.

New York. J. V. Schaffner (April 21): Reported abundant in the State. Adults first observed on April 16 at Norwich.

A WEEVIL (Hylobius radialis Buch.)

Massachusetts. J. V. Schaffner, Jr. (April 15): Adults emerged from hibernation within the last few days. A few were found on the terminal of Corsican and white pine at Weston on April 15.

Connecticut. E. P. Felt (April 23): Infestation found at Stamford.

New York. E. P. Felt (April 23): Infestation found at Mill Neck; others rather common.

PALES WEEVIL (Hylobius pales Hbst.)

New Hampshire. J. G. Conklin (April 8): Specimens received from Sanbornton, in central part of State. Reported as causing extensive damage to a large planting of white pine seedlings set out last year.

Virginia. L. A. Hetrick (April 10): Collected from foliage of Pinus taeda in King and Queen County.

PINE APHIDS (Cinara spp.)

New York. E. P. Felt (April 23): Eggs of the pine leaf aphid (Cinara strobi (Fitch)) rather common on white pines in the Greater New York area.

Virginia. L. A. Hetrick (April 15): C. taedae Tissot found feeding on foliage of loblolly pine in Middlesex County, in the eastern part of the State. More abundant than usual. Syrphid larvae present.

A SAWFLY (Neodiprion americanum Leach)

Virginia. L. A. Hetrick (April 27): In King and Queen County the hatching of overwintered eggs is again correlated with shedding of pollen from staminate cones of Pinus taeda.

RED-HEADED PINE SAWFLY (Neodiprion lecontei Fitch)

Virginia. L. A. Hetrick (April 11): Adults emerged for first time from caged cocoons held in insectary at West Point, in the eastern part of the State.

A SAWFLY (Neodiprion sertifer Geoff.)

New Jersey. F. A. Soraci (April 30): Overwintered eggs began hatching on April 29 on red and scotch pines in the Chester area, in the northern part of the State.

REDBUD

REDBUD APHID (Aphis pawneepae Hottes)

Oklahoma. F. A. Fenton (April 25): Heavily infesting redbud trees on the A. & M. Campus at Stillwater.

SOURGUM

A SCALE (Chionaspis sylvatica Sand.)

Virginia. A. M. Woodside (April): Prevalent in western part of State on Nyssa sylvatica.

SPRUCE

SPRUCE NEEDLE MINER (Taniva albolineana Kearf.)

Connecticut. E. P. Felt (April 23): Somewhat abundant on a number of Norway spruces in Westport, in the southwestern part of the State.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Pennsylvania. T. L. Guyton (April 16): Abundant on spruce at Phoenixville, in the southeastern part of the State.

Nebraska. H. D. Tate (April 15): Specimen found on spruce tree in Cheyenne County, in the western part of the State.

EASTERN SPRUCE GALL APHID (Adelges abietis L.)

New York. E. P. Felt (April 23): Somewhat common in the Greater New York area, certain trees showing a markedly heavy infestation while others nearby were practically free.

A SPRUCE GALL APHID (Adelges cooleyi Gill.)

Washington. E. J. Newcomer (April 13): Very numerous on ornamental spruce at Yakima. Eggs just beginning to hatch.

SUMAC

SUMAC FLEA BEETLE (Blepharida rhois Forst.)

Alabama. J. M. Robinson (April 9): An adult collected at Reform, in the eastern part of the State.

SYCAMORE

AN APHID (Drepanosiphum platanoides Schr.)

Texas. R. K. Fletcher (April 15): Present on sycamore in Kaufman County, in the northwestern part of the State.

SYCAMORE LACEBUG (Corythucha ciliata Say)

New York. E. P. Felt (April 23): Sycamore lacebugs were reported as abundant at New Rochelle.

WILLOW

SPOTTED WILLOW LEAF BEETLE (Chrysomela lapponica L.)

Kentucky. W. A. Price (April 25): Poplar and willow foliage damaged at Independence, in the northern part of the State.

A MIDGE (Rhabdophaga sp.)

Connecticut and New Jersey. E. P. Felt (April 23): Willow branch midge reported as abundant and injurious last year from Stamford, Conn., and Princeton, N.J.

I N S E C T S   A F F E C T I N G   G R E E N H O U S E   A N D  
O R N A M E N T A L   P L A N T S .

HAIRY CHINCH BUG (Blissus hirtus Montd.)

Connecticut. J. P. Johnson (April 21): At New Haven, during the week of April 13, hibernating adults became active in lawn grass, where they were observed traveling in and over the turf.

AN APHID (Macrosiphum taraxaci Kalt.)

Oregon. R. L. Post (April 7): Reported severely damaging a 6-acre planting of dandelions being grown for seed at Salem. (Det. by A. N. Tissot.)

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Mississippi. G. L. Bond (April 25): New light infestations reported in southeastern part of the State.

A COCCID (Parlatoria theae Ckll.)

North Carolina. J. O. Rowell (February 28): A specimen infesting shrub at Reidsville, Rockingham County.

A MIDGE (Sciara sp.)

Minnesota. A. G. Ruggles and C. E. Mickel (April 16): Found on sweet-clover in greenhouse at University Farm.



A FLY (Scatophila sp.)

South Carolina. W. M. Upholt (April 7): Scatophila sp., probably despecta Hal., very plentiful, particularly around eggplant seedlings, in a greenhouse at Clemson during the latter part of March. (Det. by D. G. Hall.)

ARBORVITAE

ARBORVITAE APHID (Cinara tujafilina Del G.)

Mississippi. C. Lyle (April 25): Specimens received from Chickasaw County on April 7. Reported as injuring arborvitae in the north-eastern district, and in the Meridian and Jackson areas.

Oklahoma. F. A. Fenton (April 25): More injurious to arborvitae and cedar than it has been in several years. The subterranean form, when numerous, kills shrubs.

A SPIDER MITE (Tetranychus sp.)

Mississippi. C. Lyle (April 25): Infested arborvitae and boxwood plants received from Warren and Alcorn Counties, and infested arborvitae plants from Copiah County, the Jackson area, and Tate County. Heavy infestations were observed in greenhouses in the Meridian district. Reported as infesting lettuce in a greenhouse in Panola County.

E. W. Dunnam, et al. (April 5): A few red spiders were noted on arborvitae plants in Leland, Washington County, in the eastern part of the State, during the week ended April 5.

AZALEA

AZALEA SCALE (Eriococcus azaleae Comst.)

Alabama. J. M. Robinson (April 15): Found on azalea at Montgomery.

Mississippi. C. Lyle, et al. (April 25): A few small heavy infestations reported from the southeastern district, and a few light infestations observed in the Meridian area.

A SCALE (Lecaniodiaspis sp.)

Virginia. A. M. Woodside (April 21): Single infested azalea plant found along edge of woods at Crozet, in Albemarle County. (Det. by H. Morrison.)

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Laboulb.)

New Jersey. H. W. Allen (April 15): Heavy infestation noted at Moorestown.

Oregon. J. Schuh (April 20): Started to emerge on boxwood at Albany on April 20.: Very serious in certain localities.

BOXWOOD PSYLLID (Psylla buxi L.)

Oregon. J. Schuh (April 22): Common and beginning to emerge on boxwood in the Willamette Valley.

CAMELLIA

CAMELLIA SCALE (Lepidosaphes camelliae Hoke)

Mississippi. M. L. Grimes (April 25): Reported as heavily infesting camellia in some localities in the Meridian area.

TEA SCALE (Fiorinia theae Green)

Mississippi. T. F. McGehee (April 25): Heavily infesting camellia leaves in Harrison County, in the southern part of the State.

CARNATION

A FLY (Dolichopus ramifer Loew)

Colorado. L. E. Taylor (March 25): Specimens collected on carnations in a greenhouse at Denver. Plants found infested by a maggot located under the epidermis of the plant stem. (Det. by C. T. Greene.)

CHRYSANTHEMUM

CHRYSANTHEMUM GALL MIDGE (Diarthronomyia chrysanthemi Ahlberg)

Oklahoma. F. A. Fenton (April 25): Reported on chrysanthemums at Oklahoma City.

DOGWOOD

A BORER (Chrysobothris sp.)

Tennessee. G. M. Bentley (April 26): Flat-headed borer attacking red dogwoods at Knoxville, in Knox County.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Mississippi. J. Milton (April 25): Reported as severely damaging euonymus plants in Yazoo County, in the western part of the State.

Texas. R. K. Fletcher (March 25): Present on euonymus in Rusk County in the northeastern part of the State.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips simplex Morison)

Florida. J. R. Watson (April 23): Becoming increasingly abundant throughout the central and southern parts of the State.

PYRACANTHA

A LACEBUG (Corythucha cydoniae Fitch)

Georgia. T. L. Bissell (April 9): Adults found hidden in dead leaves of Pyracantha sp. at Experiment. Not active today, although green leaves show feeding spots.

HOLLY

HOLLY LEAF MINER (Phytomyza ilicis Curtis)

New York. E. P. Felt (April 23): Found in moderate numbers affecting holly in several localities in western Long Island.

New Jersey. E. P. Felt (April 23): Found in moderate numbers affecting holly at Orange.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Ohio. C. R. Neiswander (April 26): Following 2 weeks of abnormally high temperature, eggs began hatching on April 15 and by April 22 all viable eggs had hatched. The average starting date for hatching is May 1 at Wooster.

JUNIPER

JUNIPER WEBWORM (Dichomerus marginellus F.)

Connecticut. E. P. Felt (April 23): Damage found somewhat commonly on juniper at New Canaan, in the southeastern part of the State.

MIMOSA

A SCALE (Lecaniodiaspis sp.)

Virginia. A. M. Woodside (January): Specimen of infested mimosa received from Charlotte County. (Det. by H. Morrison.)

MAGNOLIA

A PSYLLID (Trioza magnoliae Ashm.)

Mississippi. C. Lyle (April 25): Specimens found in galls on leaves of a wild tree, probably bay, from Harrison County.



A SCALE (Toumeyella turgida Ckll.)

Mississippi. C. Lyle (April 25): Specimens received from Harrison and Hancock Counties, where they were infesting magnolia.

PEONY

OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

Virginia. A. M. Woodside (March): Common on old peony stems at Staunton.

ROSE

ROSE APHID (Macrosiphum rosae L.)

New Jersey. M. D. Leonard (April 30): Moderate to heavy infestation on tender terminal shoots of large climbing rosebush at Haddonfield.

South Carolina. C. F. Rainwater (April 26): Reported injuring roses in Florence County, in the eastern part of the State.

Georgia. P. M. Gilmer (April 26): Worse than normal on roses in Tift, Lowndes, and Turner Counties, in the southern part of the State. Little or no indication of parasitization.

Mississippi. C. Lyle (April 25): Aphids, possibly belonging to this species, were abundant on rose in the southeastern section and in the Meridian area. No specimens received.

E. W. Dunnam, et al. (April 12): Aphids noted in Washington County on roses. Species not determined.

AN APHID (Myzus porosus Sand.)

Florida. M. D. Leonard (April 12): Several garden-rose plants heavily infested. Reported recently as abundant on roses in gardens at Orlando.

A LEAFHOPPER (Dikraneura cockerellii Gill.)

Arizona. R. A. Flock (April 14): Causing severe damage to ornamental roses near dormant grape vines at Tucson, in southern part of State, in January, February, and March.

OLIVE SCALE (Parlatoria oleae Colv.)

California. C. K. Fisher (March 31): Eggs, but no young, found on rose at the laboratory at Fresno on March 19. A few crawlers were found under scales examined on March 26 but none were seen to be migrating. Crawlers first recorded on rose on April 10 in 1940.

THRIPS (Thysanoptera)

South Carolina. C. F. Rainwater (April 26): Numerous in rose buds in Florence County.

A ROSE SAWFLY (Tenthredinidae)

New Jersey. M. D. Leonard (April 30): Number of small black sawflies, several of which seemed to be trying to oviposit, observed resting on leaves of several rose bushes at Haddonfield.

SNOWBALL

SNOWBALL APHID (Aphis viburnicola Gill.)

New Jersey. M. D. Leonard (April 30): Several large snowball shrubs at Haddonfield have very few leaves deformed. Infestation seems to be lighter than usual.

SPIREA

SPIREA APHID (Aphis spiraeicola Patch)

New Jersey. M. D. Leonard (April 30): At Haddonfield no aphids observed on spirea shrubs which become more or less infested each season.

I N S E C T S   A T T A C K I N G   M A N   A N D

D O M E S T I C   A N I M A L S

MAN

MOSQUITOES (Culicinae)

Vermont. H. L. Bailey (April 14): Very small larvae of Aedes spp. found today in swampy pools at Salisbury, Addison County, in the western part of the State.

Utah. G. F. Knowlton (April 20): Adult A. dorsalis Meig. present in field west of Logan.

Oregon. E. F. Knipling (March 31): Unusually mild weather during February and March has resulted in some mosquito breeding in the Portland area. Adults of Theobaldia spp. were active as early as March 2 and egg rafts of this species were taken in considerable numbers on March 16. Larvae of A. increpitus Dyar were found on March 11, 24 days earlier than recorded collections of this species for the Portland area.

A GNAT (Chaoborus astictopus D. & K.)

California. A. W. Lindquist (March 31): Number of larvae in bottom samples at Nice, in the northwestern part of the State, is somewhat greater than that of 1940, but approximately 26 percent less than in 1939. More larvae were recovered on the southwestern part of

the lake during the past winter than in the northeastern part, and the number of larvae at Upper Blue Lake on March 7 was slightly higher than in Clear Lake. (April 23): First emergence at Nice.

SANDBLIES (Culicoides spp.)

Virginia. L. A. Hetrick (April 21): First biting and seasonal activity of adults noted at West Point.

Florida. W. E. Dove (April 12): The sand fly Culicoides mississippiensis Hoffm. is very numerous and annoying to surveying parties working on army camp sites.

F. C. Bishopp (April 26): C. canithorax Hoffm. reported present in small numbers on marshes and in New Smyrna, in the eastern part of the State, during the middle of March was annoying for only a few nights on the mainland, Fort Pierce, during January, February, and March. Reported by residents living along the river as very light.

Mississippi. G. L. Bond (April 25): Reported as annoying along the Gulf coast.

BEDBUG (Cimex lectularius L.)

Rhode Island. B. Eddy (April 22): Reported infesting a house.

Nebraska. H. D. Tate (April 16): Reported infesting a house in Douglas County, in the western part of the State, on April 7.

Oregon. D. C. Mote (April 2): Found in used building material at Weston and in an old house at Gales Creek, in the northern part of the State.

TROPICAL RAT MITE (Liponyssus bacoti Hirst)

California. E. A. McGregor (April 3): Specimens collected at Piru, in the southern part of the State, on March 26, were found crawling on the inside walls of a residence. (Det. by H. E. Ewing.)

D. F. Barnes (March 24): Specimens taken on rat-infested property northeast of Fresno where cats, dogs, and humans have been considerably irritated. (Det. by H. H. Keifer.)

AMERICAN DOG TICK (Dermacentor variabilis Say)

Massachusetts. C. N. Smith (April 2): Few nymphs found on a mouse taken at Gay Head, on Martha's Vineyard, on March 27.

Maryland. E. B. Marshall (April): First tick taken on clothing on April 14 at Laurel. More abundant than I have ever seen on setter dogs.



District of Columbia. F. C. Craighead (April 7): Two specimens found on clothing after a walk over vacant lots in Chevy Chase. (April 13): Many ticks present on vegetation up the Potomac River, and on dogs.

H. L. Trembley (April 19): Two male ticks were received on April 19; the first specimens to be received by the Division of Insects attacking man and animals.

South Carolina. W. C. Nettles (April 25): Reported as more numerous than usual on dogs in counties of Richland, in the central part of the State, and Marlboro, in the eastern part of the State.

#### CLOVER MITE (Bryobia praetiosa Koch)

Virginia. C. L. Pace (March and April): Specimens found in buildings at Richmond on March 31. Reported as crawling about inside the windows and up the curtains of a house "by the thousands." (Det. by H. E. Ewing.)

S. B. Fenne (April 15): Reported as pest in house in Halifax County, in the southern part of the State.

E. A. Back (April 30): Specimens received on April 14 from Beaverdam, where they were very abundant on lawn and about walls of a house.

South Carolina. R. E. Ware (March 14): Collected in an apartment at Clemson.

Kentucky. W. A. Price (April 25): Reported in dwellings at Glasgow and Lexington.

Nebraska. H. D. Tate (March 17): Specimens submitted from Scotts Bluff County, with report that they were abundant and annoying in and about houses at Scottsbluff and Gering.

#### CATTLE

#### SCREWORM (Cochliomyia americana C. & P.)

Texas. D. C. Parman (April 25): Population of C. americana, as indicated by April trap catches, is approximately three times as great as for the same period last year and one of the highest populations recorded during the last 5 years for the overwintering area. Infestations are not uniformly heavy. In Uvalde and Kinney Counties, in the southern part of the State, where populations have been consistently high heretofore, the flies were approximately one-third less in number than in the adjoining counties. The population is generally higher over the western part of the overwintering area than for any year during the last 5-year period, and is lower over the Gulf coast and east of San Antonio. Slight increase in the immediate vicinity of Victoria. The northern part of the State is being infested about 3 weeks earlier than last year.

E. C. Cushing (April 22): Screwworms have reached as far north as an east-and west-line from Fort Stockton to Llano. Cases appeared at Menard on April 14, which is about 3 weeks earlier than last year. This appears to substantiate the belief that the fly overwintered from 50 to 100 miles farther north than a year ago. Reported as building up in the Refugio County section, in the southeastern part. The population in the Laredo section is rather high and activity is increasing. Infestation in calves from 3 days to 2 weeks old ran as high as 10 percent on some ranches in the thick brushy section of Zavala and Uvalde Counties on April 19. Screwworm is likely to spread because large numbers of cattle and other livestock are beginning to move by truck within the State. Infested animals have been shipped from Uvalde County to Northern States.

California. C. C. Deonier (April 26): No C. americana cases were found in a brief survey in the Sacramento Valley from Redding to Davis, nor was C. macellaria F. observed.

HORN FLY (Haematobia irritans L.)

Florida. W. E. Dove (April 28): About 500 horn flies were present on dark-colored animals at the laboratory and in Panama City they are now becoming numerous on range cattle.

Oklahoma. W. G. Bruce (April 9): Very few observed on cattle at Waurika, in the southern part of the State.

Texas. W. G. Bruce (April 23): First appearance on cattle at Dallas was noted on March 10, when a total of 3 flies was found on 8 head of cattle. Forty-two flies were found on 6 head of cattle on March 21, 100 flies on 1 animal on April 7, and approximately 200 flies on 1 animal on April 11. Largest number from overwintering cages emerged during the period April 7 to April 20, and dates of maximum emergence from cages are almost identical with those of 1940.

STABLEFLY (Stomoxys calcitrans L.)

Florida. W. E. Dove (April 25): Increased numbers of dogflies were reported in the vicinity of Sarasota. (April 30): During the latter half of this month adults have ceased to emerge in overwintering cages containing peanut litter. Breeding is beginning in mixtures of manure and straw about some local dairies.

F. C. Bishopp, et al. (April 26): Few noted causing slight annoyance at Coronado Beach, on March 15. Dog flies continued to emerge from peanut litter throughout January, February, and March, with some very heavy infestations furnishing flies at the rate of 2,505 per cubic foot of litter.

Texas. E. W. Laake (April 23): Heavy breeding has continued throughout the month. Cattle in vicinity of Dallas have been annoyed all winter and increasingly so during April, as many as 100 flies on the forelegs of one animal being common among dairy cattle.

COMMON CATTLE GRUB (Hypoderma lineatum De Vill.)

Texas. E. W. Laake (April 23): Peak of activity occurred during last week of March, although still active at Dallas as late as April 10.

A DEER FLY (Chrysops fulginosa Wied.)

Florida. W. E. Dove (April 7): Appeared in numbers about school grounds near a salt bayou and on cattle in the vicinity of Panama City.

LONE STAR TICK (Amblyomma americanum L.)

Mississippi. C. Lyle (April 25): Large numbers of nymphs on grass and weeds reported as causing annoyance on one property in Copiah County.

Oklahoma. C. F. Stiles (April 23): Very numerous in the southeastern part of the State. Found on lawns and dogs in Durant.

LICE (Anoplura)

Oklahoma. J. Myron Maxwell (April 24): Reporter has never known lice to be such a problem on all forms of livestock as they are at present. Practically every animal examined, from the northeastern part of the State to the southwestern, and even the Panhandle section, has been infested with some form. Fortunately, there have only been a few reports of the short-nosed ox louse (Haematopinus eurysternus Nitz.) but the long-nosed ox louse (Linognathus vituli L.) and the biting ox louse (Bovicola bovis L.) have been extremely abundant. Many dipping vats are being built throughout the State for the purpose of louse and tick control.

Texas. J. O. Stovall (April 23): Cattle in Hemphill County show more signs of lice than ever before. Infestations reported as general to very severe in five counties in eastern and western parts of the State.

POULTRY

STICKTIGHT FLEA (Echidnophaga gallinacea Westw.)

Florida. W. E. Dove (April 29): Chickens infested with sticktight fleas were reported from Panama City today.

Mississippi. F. F. McGehee (April 25): Reported as causing annoyance in some garages and homes in Harrison County.

SHEEP

FLEECE WORMS (Phormia spp.)

Texas. E. C. Cushing (April 22): Reported as causing quite a bit of trouble on unsheared sheep in the Menard area.



D. C. Parman (April 25): Wool worn cases, many of which are especially severe, have been reported generally in sheep. Some flocks are said to have as many as 15 percent of the sheep infested. (April 26): Blowfly population is one of the highest of a 10-year record for all status traps west of San Antonio. At Uvalde, population of the black blowfly (P. regina Meig.) for the first half of April was equal to the normal annual catch. Infestations are occurring in many of the primary screwworm infestations, and at present threaten heavy losses to sheep and goats throughout the western part of the United States, as well as to other animals by secondary infestations in wounds primarily infested by the screwworm.

E. W. Larke (April 20): Infestation by P. regina occurred in a dehorned animal at Dallas.

California. C. C. Deonier (April 26): A few wool worn cases were found in a brief survey from Redding to Davis in the Sacramento Valley.

## HOUSEHOLD AND STORED-PRODUCTS INSECTS

### TERMITES (Isoptera)

New Hampshire. J. G. Conklin (April 9): Specimens received from Nashua, in the southern part of the State, reported as damaging rolls of paper stock in a mill.

Rhode Island. B. Eddy (April 22): Reticulitermes flavipes Koll. reported as numerous, especially in old houses.

New York. E. P. Felt (April 23): Infestations of R. flavipes found in a region within 50 miles of New York City, with serious injury reported to underpinnings of some buildings.

Virginia. L. A. Hetrick (April 3): First swarming of reproductives of R. flavipes noted outside of a heated building in West Point.

District of Columbia. R. A. St. George (April 19): First emergence of R. flavipes out of doors, reported swarming from soil adjacent to foundation of a building in Washington. Normally abundant.

North Carolina. C. H. Hoffman (April 24): Termites reported as swarming in houses at Asheville.

Georgia. W. H. Clarke (April 6): First emergence of termites from an infested house observed at Cornelia.

Ohio. T. H. Parks (April 23): Reported as normally abundant at Columbus.

Indiana. J. J. Davis (April 23): Termites numerous at LaFayette during the last 2 weeks.

Missouri. L. Haseman (April 25): Termites reported as swarming in central part of the State.

Nebraska. H. D. Tate (March 28): R. tibialis Banks reported from Douglas, Saunders, and Pawnee Counties, in the eastern part of the State.

Texas. R. K. Fletcher (April): Termites reported as injuring houses in Lamar County on April 7, in Colorado and Hopkins Counties on April 11, in De Witt County on April 15, and as being present on rose bushes in McMullen County on April 12

Idaho. J. R. Douglass (April 12): Termites reported in buildings in Twin Falls.

Utah. G. F. Knowlton (April 12): Termites severely damaging a house at Smithfield, in the northern part of the State.

ANTS (Formicidae)

Connecticut. E. P. Felt (April 23): Camponotus herculeanus pennsylvanicus Deg. recently reported from Danbury and Darien, in the southwestern part of the State.

North Carolina. C. H. Hoffmann (April 24): Ants reported as marring lawns at Asheville.

Mississippi. C. Lyle, et al. (April 25): Specimens of Iridomyrmex humilis Mayr received from Perry County on March 29; reported from Monroe County. Specimens of fire ants (Solenopsis xyloni McCook) were received from Harrison County, where they were marring lawns. Reported as numerous and damaging the berries in strawberry patches, and from Monroe, Prentiss, and Simpson Counties. Specimens of Camponotus caryae rasilis Walr. were recently sent in from Hinds County.

Louisiana. Mrs. M. E. Byrd (March 30): Monomorium pharaonis L. reported as present in every part of a house at Baton Rouge. (Det. by M. R. Smith.)

Indiana. J. J. Davis (April 23): Lawn ants reported as abundant in lawns all over the State.

Utah. G. F. Knowlton (April 10): At Logan red ants are invading a new house and harvester ants are annoying and killing out spots in alfalfa fields.

BROWN-BANDED ROACH (Supella supellectilium Serv.)

Michigan. E. A. Back (April 23): Specimens received today from Muskegon Heights, in the northern part of the State, where they are reported as infesting the house of a family which recently moved with furnishings from Texas.

Oklahoma. F. A. Fenton (April 25): Reported from Stillwater.

GERMAN COCKROACH (Blattella germanica L.)

Mississippi. C. Lyle (April 25): Specimens sent from Humphreys County on March 31 and from Choctaw County on April 18.

Utah. G. F. Knowlton (April 19): Infesting a market at Logan.

ORIENTAL COCKROACH (Blatta orientalis L.)

Rhode Island. B. Eddy (April 22): Reported with household insects.

Nebraska. H. D. Tate (March 25): Specimens received from Thayer County, in the southeastern part of the State, on March 25.

AN EARWIG (Marava wallacei Dorn.)

New Jersey. E. A. Back (April 30): Collected at a bakery in Dumont in the northern part of the State on January 31. According to A. B. Gurney, this species is not known to be established in this country, but is sometimes intercepted from Australia. (Det. by A. B. Gurney.)

WHARF BORER (Nacerda melanura L.)

New York. E. A. Back (April 30): Adults received April 8 from lower Broadway, New York City, and on April 17 from Brooklyn.

A LATHRIDIID (Cartodere elegans Aube)

New York. E. A. Back (April 10): Specimens received from Brooklyn from a building about 30 years old, newly renovated with new plaster walls and hardwood flooring. (Det. by W. S. Fisher.)

A BORER (Xylotrechus colonus F.)

New York. E. A. Back (April 15): Specimens from firewood in basement of a house received from Brooklyn. (Det. by W. S. Fisher.)

A BORER (Neoclytus conjunctus Lec.)

Oregon. J. E. Davis (April 8): Adults emerged from oak and ash firewood in a household at Salem.

CARPENTER BEE (Xylocopa virginica Drury)

Virginia. L. A. Hetrick (April 22): Adults numerous and active at West Point during warm weather of last 2 weeks.

COMMON POWDER-POST BEETLE (Lyctus planicollis Lec.)

Oklahoma. F. A. Fenton (April 25): Reported from four houses in Oklahoma City.



BLACK CARPET BEETLE (Attagenus piceus Oliv.)

Rhode Island. B. Eddy (April 22): Reported as household insect.

Michigan. R. Hutson (April 22): In Detroit common in a house after it had been fumigated.

VARIED CARPET BEETLE (Anthrenus verbosci L.)

District of Columbia. E. A. Back (March 28): Adult specimens received from a house in Washington.

A CLOTHES MOTH (Tineola walsinghami Busck)

Florida. E. A. Back (March): Larval cast and reared adult received from house in Saint Petersburg. (Det. by C. Heinrich.)

BROWN SPIDER BEETLE (Ptinus brunneus Duft.)

Alabama. J. M. Robinson (April 4): Found in flour and feed grain at Florence.

Ohio. T. H. Parks (April 22): Specimens received during March from Geauga County, in the northeastern part of the State, and from Clark County, in the west-central section, with statement that they were annoying in occupied houses.

Mississippi. C. Lyle (April 25): Adults received from Tippah County, in the northeastern part of the State, on April 1.

STORED GRAIN INSECTS (Coleoptera)

New Jersey. E. A. Back (April 21): Adults of Sitophilus granarius L. were received from a duplex house in Summit, in the northern part of the State.

District of Columbia. E. A. Back (March 28): In Washington specimens of the larder beetle (Dermestes cadaverinus F.) were collected in the commissary of a hospital after fumigation of the building. (Det. by H. S. Barber.)

Alabama. J. M. Robinson (April 8): Tenebrio obscurus F. found in stored cereal products at Wallace in the southern part of the State.

Minnesota. A. G. Ruggles and C. E. Mickel (April 16): Cynaues angustus Lec. found in stored corn in Lakefield, in the southwestern part of the State.

North Dakota. J. A. Munro (April): Specimens of Tribolium madens Charp. and Cathartus advena Walth. were sent in from Lunds Valley in Mountrail County, and from Wahpeton, in Richland County, on April 11; of T. confusum Duv. from Wahpeton on April 11; and of Laemophloeus minutus Oliv. from Willrose, in Williams County, and from Wahpeton on April 16.



Idaho. R. A. Fisher (April 15): Stored-grain insects are becoming more numerous in the northern counties, the species present being T. castaneum Hbst., Ptinus fur L., Cryptophagus sp., T. confusum, Oryzaephilus surinamensis L., and L. ferrugineus Steph. The last three are the most common species.

A BEETLE (Henoticus californicus Mann.)

California. P. Simmons (April 2): Specimens collected on sacked dried fruits, including apples and apricots, at Oakland. (Det. by W. S. Fisher.)

A SNOW FLEA (Achorutes nivicola Fitch)

Rhode Island. B. Eddy (April 22): Reported on snow in great numbers a month ago and found in a driveway last week.

GIANT WATER BUG (Belostomatidae griseus Say)

Florida. E. A. Back (April 10): Specimens received from Miami Beach. Reported as crawling on streets by the thousands. (Det. by H. G. Barber.)

Special Note to Collaborators

An American plant, known as Salvia reflexa, which is a member of the mint family and a near relative of the ornamental scarlet sage cultivated in gardens, has become established in Australia as a noxious weed, and Government entomologists there are looking for insect enemies of the plant. Please report any insect enemies you may find on the plant.